



NLPCC 2023



The 12th CCF International Conference
on Natural Language Processing and Chinese Computing

NLPCC 2023 Handbook

Foshan, China
12-15 October, 2023



Preface by the Program Committee Co-Chairs

Welcome to NLPCC 2023, the twelfth CCF International Conference on Natural Language Processing and Chinese Computing. Following the success of previous conferences held in Beijing (2012), Chongqing (2013), Shenzhen (2014), Nanchang (2015), Kunming (2016), Dalian (2017), Hohhot (2018), Dunhuang (2019), Zhengzhou (2020), Qingdao (2021), and Guilin (2022), this year's NLPCC will be held in Foshan. As a premier international conference on natural language processing and Chinese computing, organized by the CCF-NLP (Technical Committee of Natural Language Processing, China Computer Federation, formerly known as Technical Committee of Chinese Information, China Computer Federation), NLPCC serves as an important forum for researchers and practitioners from academia, industry, and government to share their ideas, research results, and experiences, and to promote their research and technical innovations.

The fields of natural language processing (NLP) and Chinese computing (CC) have boomed in recent years. Following NLPCC's tradition, we welcomed submissions in ten areas for the main conference: Fundamentals of NLP; Machine Translation and Multilinguality; Machine Learning for NLP; Information Extraction and Knowledge Graph; Summarization and Generation; Question Answering; Dialogue Systems; Large Language Models; NLP Applications and Text Mining; Multimodality and Explainability. This year, we received 478 valid submissions to the main conference on the submission deadline.

After a thorough reviewing process, including meta reviewing, out of 478 valid submissions (some of which were withdrawn by authors or desk-rejected due to policy violations), 143 papers were finally accepted as regular papers to appear in the main conference, where 134 were written in English and 9 in Chinese, resulting in an acceptance rate of 29.9%. Among them, 64 submissions will be presented as oral papers and 79 as poster papers at the conference. 5 papers were nominated by our area chairs for the best paper award. An independent best paper award committee was formed to select the best papers from the shortlist. This proceeding includes only the accepted English papers; the Chinese papers will appear in the ACTA Scientiarum Naturalium Universitatis Pekinensis. In addition to the main proceedings, 3 papers were accepted to the Student workshop, 32 papers were accepted to the Evaluation workshop.

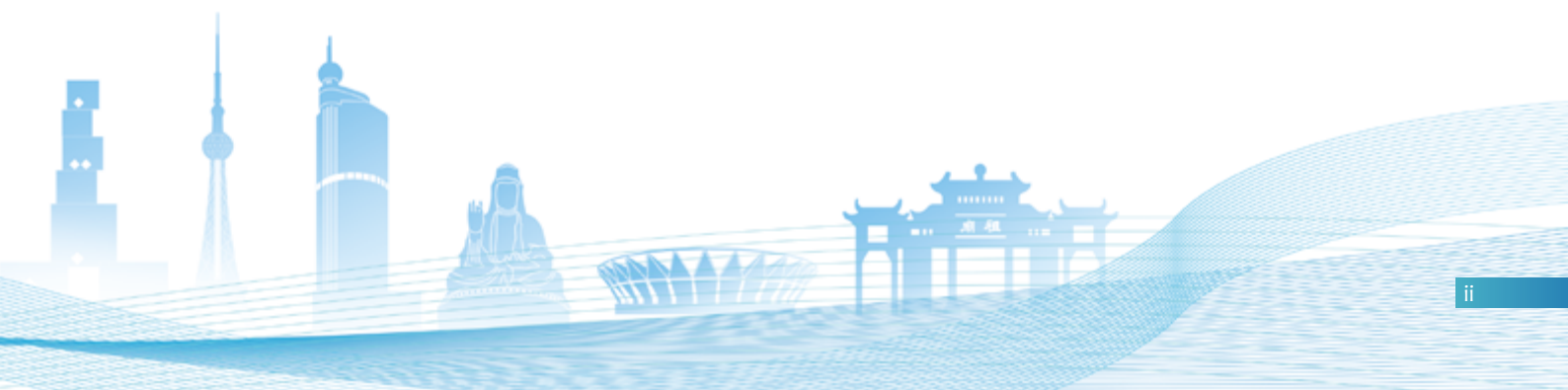
We are honored to have four internationally renowned keynote speakers, Denny Zhou (Google Deepmind), Xia (Ben) Hu (Rice University), Arman Cohan (Yale University), and Diyi Yang (Stanford University), sharing their findings on recent research progress and achievements in natural language processing.

We would like to thank all the people who have contributed to NLPCC 2023. First of all, we would like to thank our 21 area chairs for their hard work recruiting reviewers, monitoring the review and discussion processes, and carefully rating and recommending submissions. We would like to thank all 322 reviewers for their time and efforts to review the submissions. We are also grateful for the help and support from the general chairs, Rada Mihalcea and Hang Li, and from the organization committee chairs, Biqin Zeng, Yi Cai and Xiaojun Wan. Special thanks go to Yu Hong and Qingting Xu, the publication chairs. We greatly appreciate all your help!

Finally, we would like to thank all the authors who submitted their work to NLPCC 2023, and thank our sponsors for their contributions to the conference. Without your support, we could not have such a strong conference program.

We are happy to see you at NLPCC 2023 in Foshan and hope you enjoy the conference!

Fei Liu, Emory University
Nan Duan, Microsoft Research Asia
NLPCC 2023, Program Committee Co-Chairs



Organizing Committee

Organizer

China Computer Federation (CCF)

Host

South China Normal University

Publishers

Lecture Notes on Artificial Intelligence (LNAI), Springer Verlag
ACTA Scientiarum Naturalium Universitatis Pekinensis

General Chairs

Rada Mihalcea
Hang Li

University of Michigan
ByteDance Technology

Program Committee Chairs

Fei Liu
Nan Duan

Emory University
Microsoft Research Asia

Student Workshop Chairs

Jing Li
Jingjing Wang

The Hong Kong Polytechnic University
Soochow University

Evaluation Chairs

Yunbo Cao
Piji Li

Tencent
Nanjing University of Aeronautics and Astronautics

Tutorial Chairs

Zhongyu Wei
Zhaochun Ren

Fudan University
Shandong University

Publication Chairs

Yu Hong
Qingting Xu

Soochow University
Soochow University

Journal Coordinator

Yunfang Wu

Peking University

Conference Handbook Chair

Leixin Du

South China Normal University

Sponsorship Chairs

Min Zhang
Haofen Wang
Ruifeng Xu

Harbin Institute of Technology (Shenzhen)
Tongji University
Harbin Institute of Technology (Shenzhen)

Publicity Chairs

Benyou Wang
Shen Gao
Xianling Mao

The Chinese University of Hong Kong (Shenzhen)
Shandong University
Beijing Institute of Technology

Organization Committee Chairs

Biqin Zeng
Yi Cai
Xiaojun Wan

South China Normal University
South China University of Technology
Peking University

Treasurer

Yajing Zhang
Xueying Zhang

Soochow University
Peking University

Webmaster

Hui Liu

Peking University

Program Committee

Program Committee Chairs

Fei Liu	Emory University
Nan Duan	Microsoft Research Asia

Program Committee Members

Xiang Ao	Institute of Computing Technology, Chinese Academy of Sciences
Jiaxin Bai	Hong Kong University of Science and Technology
Xinyi Bai	Google
Junwei Bao	JD AI Research
Qiming Bao	The University of Auckland
Xiangrui Cai	Nankai University
Shuyang Cao	University of Michigan
Zhangming Chan	Alibaba Group
Yufeng Chen	Beijing Jiaotong University
Yulong Chen	Zhejiang University, Westlake University
Bo Chen	muc.edu.cn
Jianghao Chen	CASIA
Wenhu Chen	University of Waterloo & Google Research
Yubo Chen	Institute of Automation, Chinese Academy of Sciences
Xuelu Chen	UCLA
Yidong Chen	Department of Artificial Intelligence, School of Informatics, Xiamen University
Chen Chen	Nankai University
Guanyi Chen	Utrecht University
Qi Chen	Northeastern University
Wenliang Chen	Soochow University
Xinchi Chen	Amazon AWS
Muhao Chen	USC
Liang CHEN	The Chinese University of Hong Kong
Jiangjie Chen	Fudan University
Leshang Chen	Oracle America, Inc.
Sihao Chen	University of Pennsylvania
Wei Chen	School of Data Science, Fudan University
Kewei Cheng	UCLA
Mao Cunli	kunming university of science and technology
Xiang Deng	The Ohio State University
Chenchen Ding	NICT
Qianqian Dong	ByteDance AI Lab
Yue Dong	University of California Riverside
Zi-Yi Dou	UCLA
Rotem Dror	University of Pennsylvania
Xinya Du	University of Texas at Dallas
Junwen Duan	Central South University

Chaoqun Duan	JD AI Research
Nan Duan	Microsoft Research Asia
Xiangyu Duan	Soochow University
Alex Fabbri	Salesforce AI Research
Zhihao Fan	Fudan University
Tianqing Fang	Hong Kong University of Science and Technology
Zichu Fei	Fudan university
Shi Feng	Northeastern University
Jiazhan Feng	Peking University
Yang Feng	Institute of Computing Technology, Chinese Academy of Sciences
Zhangyin Feng	Harbin Institute of Technology
Yansong Feng	Peking University
Xingyu Fu	Upenn
Guohong Fu	Soochow University
Yi Fung	University of Illinois at Urbana Champaign
Shen Gao	Shandong University
Heng Gong	Harbin Institute of Technology
Yeyun Gong	Microsoft Research Asia
Yu Gu	The Ohio State University
Yi Guan	School of Computer Science and Technology, Harbin Institute of Technology
Tao Gui	fudan university
Daya Guo	Sun Yat-Sen University
Shaoru Guo	Institute of Automation, Chinese Academy of Sciences
Yiduo Guo	Peking University
Jiale Han	Beijing University of Posts and Telecommunications
Xudong Han	The university of Melbourne
Lifeng Han	The University of Manchester
Xianpei Han	Institute of Software, Chinese Academy of Sciences
Tianyong Hao	School of Computer Science, South China Normal University
Hongkun Hao	Shanghai Jiao Tong University
Ruifang He	Tianjin University
Xudong Hong	Saarland University / MPI Informatics
I-Hung Hsu	USC Information Sciences Institute
Zhe Hu	Baidu
Junjie Hu	University of Wisconsin-Madison
Xiaodan Hu	University of Illinois at Urbana-Champaign
Minghao Hu	Information Research Center of Military Science
Shujian Huang	National Key Laboratory for Novel Software Technology, Nanjing University
Fei Huang	Tsinghua University
Baizhou Huang	Peking University
Junjie Huang	The Chinese University of Hong Kong
Yueshan Huang	University of California San Diego
Qingbao Huang	Guangxi University
Xin Huang	Institute of Automation, Chinese Academy of Sciences
James Y. Huang	University of Southern California
Jiangping Huang	Chongqing University of Posts and Telecommunications
Changzhen Ji	Hithink RoyalFlush Information Network

Chen Jia	Fudan University
Tong Jia	Northeastern University
Hao Jia	School of Computer Science and Technology, Soochow University
Hao Jiang	13306520728
Wenbin Jiang	Baidu Inc.
Jingchi Jiang	Harbin Institute of Technology
Huiming Jin	Apple Inc.
Feihu Jin	Institute of Automation □ Chinese Academy of Sciences
Peng Jin	Leshan Normal University
Zhu Junguo	Kunming University of Science and Technology
Lingpeng Kong	The University of Hong Kong
Fajri Koto	MBZUAI
Tuan Lai	University of Illinois at Urbana-Champaign
Yuxuan Lai	Peking University
Yuanyuan Lei	Texas A&M University
Maoxi Li	School of Computer Information Engineering, Jiangxi Normal University
Zekun Li	University of Minnesota
Bei Li	Northeastern University
Chenliang Li	Wuhan University
Piji Li	Nanjing University of Aeronautics and Astronautics
Zejun Li	Fudan University
Yucheng Li	University of Surrey
Yanran Li	The Hong Kong Polytechnic University
Shasha Li	College of Computer, National University of Defense Technology
Mingda Li	University of California, Los Angeles
Dongfang Li	Harbin Institute of Technology, Shenzhen
Zuchao Li	Wuhan University
Mingzhe Li	Peking University
Miao Li	The University of Melbourne
Jiaqi Li	iFlytek Research (Beijing)
Chenxi Li	UCSD
Yanyang Li	The Chinese University of Hong Kong
Fei Li	Wuhan University
Jiajun Li	Shanghai Huawei Technology Co., Ltd
Jing Li	Department of Computing, The Hong Kong Polytechnic University
Fenghuan Li	Guangdong University of Technology
Zhenghua Li	Soochow University
Qintong Li	The University of Hong Kong
Haonan Li	MBZUAI
zheng Li	Stockton University
Bin Li	Nanjing Normal University
Yupu Liang	University of Chinese Academy of Sciences
Yaobo Liang	microsoft.com
Lizi Liao	Singapore Management University
Ye Lin	Northeastern University
Haitao Lin	National Laboratory of Pattern Recognition, Institute of Automation, CAS
Jian Liu	Beijing Jiaotong University

Xianggen Liu	Sichuan University
Fei Liu	Emory University
Yuanxing Liu	Harbin Institute of Technology
Xuebo Liu	Harbin Institute of Technology, Shenzhen
Pengyuan Liu	Beijing Language and Culture University
Lemao Liu	Tencent AI Lab
Chunhua Liu	The University of Melbourne
Qin Liu	University of Southern California
Tianyang Liu	University of California San Diego
Puyuan Liu	University of Alberta
Qian Liu	Sea AI Lab
Shujie Liu	Microsoft Research Asia, Beijing, China
Kang Liu	Institute of Automation, Chinese Academy of Sciences
Yongbin Liu	School of Computer Science, University of South China
Zhenhua Liu	School of Computer Science and Technology, Soochow University, China
Xiao Liu	Microsoft Research Asia
Qun Liu	Chongqing University of Posts and Telecommunications
Yunfei Long	University of Essex
Renze Lou	Pennsylvania State University
Keming Lu	University of Southern California
Jinliang Lu	National Laboratory of Pattern Recognition, CASIA, Beijing, China
Jinzhu Lu	Fudan University
Xin Lu	Harbin Institute of Technology
Shuai Lu	Microsoft
Hengtong Lu	Beijing University of Posts and Telecommunications
MingHua Ma	Microsoft
Cong Ma	Institute of Automation, Chinese Academy of Sciences; University of Chinese Academy of Sciences
Mingyu Derek Ma	UCLA
Yinglong Ma	North China Electric Power University
Yunshan Ma	National University of Singapore
Xian-Ling Mao	Beijing Institute of Technology
Zhao Meng	ETH Zurich
Xiangyang Mou	Meta
Minheng Ni	Microsoft Research
Yasumasa Onoe	The University of Texas at Austin
Zhufeng Pan	Google
Xutan Peng	Huawei
Ehsan Qasemi	University of Southern California
Weizhen Qi	University of Science and Technology of China
Tao Qian	Hubei University of Science and Technology
Yanxia Qin	School of Computing, National University of Singapore
zixuan ren	Institute of Automation
Stephanie Schoch	University of Virginia
Lei Sha	Beihang University
Wei Shao	City University of Hong Kong
Zhihong Shao	Tsinghua University

Haoran Shi	Amazon Inc.
Xing Shi	Bytedance Inc.
Jyotika Singh	Placemakr
Kaiqiang Song	Tencent AI Lab
Haoyu Song	Harbin Institute of Technology
Zhenqiao Song	UCSB
Jinsong Su	Xiamen university
Dianbo Sui	Harbin Institute of Technology
Zequn Sun	Nanjing University
Kexuan Sun	University of Southern California
Chengjie Sun	Harbin Institute of Technology
Kai Sun	Meta
Chuanyuan Tan	Soochow University
Zhixing Tan	Zhongguancun Laboratory
Minghuan Tan	Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences
Ping Tan	Universiti Malaysia Sarawak
Buzhou Tang	Harbin Institute of Technology (Shenzhen)
Rongchuan Tang	Institute of Automation, Chinese Academy of Sciences
Xiangru Tang	Yale University
Duyu Tang	Tencent
Xunzhu Tang	University of Luxembourg
Mingxu Tao	Peking University
ZHIYANG TENG	Nanyang Technological University
Xiaojun Wan	Peking University
Chen Wang	National Laboratory of Pattern Recognition, Institute of Automation, CAS
Lijie Wang	Baidu
Liang Wang	Microsoft Research
Xinyuan Wang	University of California, San Diego
Haoyu Wang	University of Pennsylvania
Xuesong Wang	Harbin Institute of Technology
Hongwei Wang	Tencent AI Lab
Hongling Wang	Soochow University
Ke Wang	Huawei Technologies Ltd.
Qingyun Wang	University of Illinois at Urbana-Champaign
Yiwei Wang	Amazon
Jun Wang	University of Melbourne
Jingjing Wang	Soochow University
Ruize Wang	Academy for Engineering and Technology, Fudan University
Zhen Wang	The Ohio State University
Qiang Wang	Hithink RoyalFlush AI Research Institute, China
Lingzhi Wang	The Chinese University of Hong Kong
Yufei Wang	Macquarie University
Xun Wang	Microsoft
Sijia Wang	Virginia Tech
Yaqiang Wang	Chengdu University of Information Technology
Siyuan Wang	Fudan University
Xing Wang	Tencent

Fei Wang	University of Southern California
Gengyu Wang	Columbia University
Tao Wang	Department of Biostatistics & Health Informatics, King's College London
Bo Wang	Tianjin University
Wei Wei	Huazhong University of Science and Technology
Bingbing Wen	The University of Washington
Lianwei Wu	School of Software Engineering, Xi'an Jiaotong University
Chenfei Wu	No. 5, Danling street
Ting Wu	Fudan University
Yuxia Wu	Xi'an Jiaotong University
Sixing Wu	School of Software, Yunnan University
Junhong Wu	Cognitive Computing Lab, Peking University
Shuangzhi Wu	Bytedance
Lijun Wu	Microsoft Research
Tengxiao Xi	University of Chinese Academy of Sciences School of Artificial Intelligence
Yang Xiang	Peng Cheng Laboratory
Tong Xiao	Northeastern University
Min Xiao	State Key Laboratory of Multimodal Artificial Intelligence Systems, Institute of Automation, CAS
Ye Xiao	Hunan University
Jun Xie	Alibaba DAMO Academy
Yuqiang Xie	Institute of Information Engineering, Chinese Academy of Sciences
Qingting Xu	Soochow University
Jinan Xu	Beijing Jiaotong University
Yiheng Xu	Microsoft Research Asia
Chen Xu	Northeastern University
kang Xu	Nanjing University of Posts and Telecommunications
Wang Xu	Harbin Institute of Technology
Jiahao Xu	Nanyang Technological University
Nan Xu	University of Southern California
Yan Xu	Hong Kong University of Science and Technology
Hanzi Xu	Temple University
Zhixing Xu	Nanjing Normal University
Jiacheng Xu	Salesforce AI Research
Xiao Xu	Harbin Institute of Technology
Rui Yan	Renmin University of China
Kun Yan	Beihang University
Lingyong Yan	Baidu Inc.
Baosong Yang	Alibaba Damo Academy, Alibaba Inc.
Shiquan Yang	The University of Melbourne
Haoran Yang	The Chinese University of Hong Kong
Liang Yang	Dalian University of Technology
Jun Yang	Marcpoint Co.,Ltd.
Muyun Yang	Harbin Institute of Technology
Kai Yang	Zhongguancun Laboratory
Zhiwei Yang	College of Computer Science and Technology, Jilin University
Ziqing Yang	CISPA Helmholtz Center for Information Security

Jianmin Yao	Soochow University
Shengming Yin	University of Science and Technology of China
Wenpeng Yin	Pennsylvania State University
Pengfei Yu	Department of Computer Science, University of Illinois at Urbana-Champaign
Botao Yu	Nanjing University
Donglei Yu	Institute of Automation, Chinese Academy of Sciences
Dong Yu	Beijing Language and Culture University
Tiezheng Yu	The Hong Kong University of Science and Technology
Junjie Yu	Soochow University
Heng Yu	Shopee
Chunyuan Yuan	Institute of Information Engineering □ Chinese Academy of Sciences
Xiang Yue	The Ohio State University
Daojian Zeng	Hunan Normal University
Qi Zeng	University of Illinois at Urbana-Champaign
Shuang(Sophie) Zhai	University of Oklahoma
Yi Zhang	University of Pennsylvania
Qi Zhang	Fudan University
Yazhou Zhang	Zhengzhou University of Light Industry
Zhuosheng Zhang	Shanghai Jiao Tong University
Wei-Nan Zhang	Harbin Institute of Technology
Shuaicheng Zhang	Virginia Polytechnic Institute and State University
Xiaohan Zhang	Institute of Automation, Chinese Academy of Sciences
Jiajun Zhang	Institute of Automation Chinese Academy of Sciences
Zhihao Zhang	Beihang University
Zhiyang Zhang	National Laboratory of Pattern Recognition, Institute of Automation, CAS
Dakun Zhang	SYSTRAN
Zixuan Zhang	University of Illinois Urbana-Champaign
Peng Zhang	Tianjin University
Wenxuan Zhang	DAMO Academy, Alibaba Group
Yunhao Zhang	national Laboratory of Pattern Recognition, Institute of Automation, Chinese Academy of Sciences
Xingxing Zhang	Microsoft Research Asia
Yuanzhe Zhang	Institute of Automation, Chinese Academy of Sciences
Zhirui Zhang	Tencent AI Lab
Xin Zhao	Fudan University
Zhenjie Zhao	Nanjing University of Information Science and Technology
Yanyan Zhao	Harbin Institute of Technology
Mengjie Zhao	Center for Information and Language Processing, LMU Munich
Xinpei Zhao	CASIA
Sanqiang Zhao	University of Pittsburgh, Department of Informatics and Networked Systems, School of Computing and Information
Wanjun Zhong	Sun Yat-Sen University
Ben Zhou	University of Pennsylvania
Weikang Zhou	Fudan University
Peng Zhou	Kuaishou
Xin Zhou	Fudan University
Xiabing Zhou	Soochow University

Guangyou Zhou	School of Computer Science, Central China Normal University
Wangchunshu Zhou	ETH Zurich
Tong Zhu	Soochow University
Jie Zhu	Soochow University
Conghui Zhu	Harbin Institute of Technology
Yaoming ZHU	ByteDance AI lab
Muhua Zhu	Meituan Group

Organizers and Supports

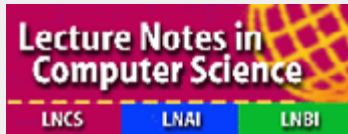
Organizer



Host



Publishers



Sponsoring Institutions

Diamond Sponsors



Platinum Sponsors



Golden Sponsors



Contents

1 Organization	1
2 Conference Venues	2
3 Conference Agenda	3
Tutorials	3
Main Conference & Workshops	4
4 Tutorials:12-13 October	6
Schedule	6
Lecture 1	7
Lecture 2	8
Lecture 3	9
Lecture 4	10
Lecture 5	11
Lecture 6	12
Lecture 7	13
Lecture 8	14

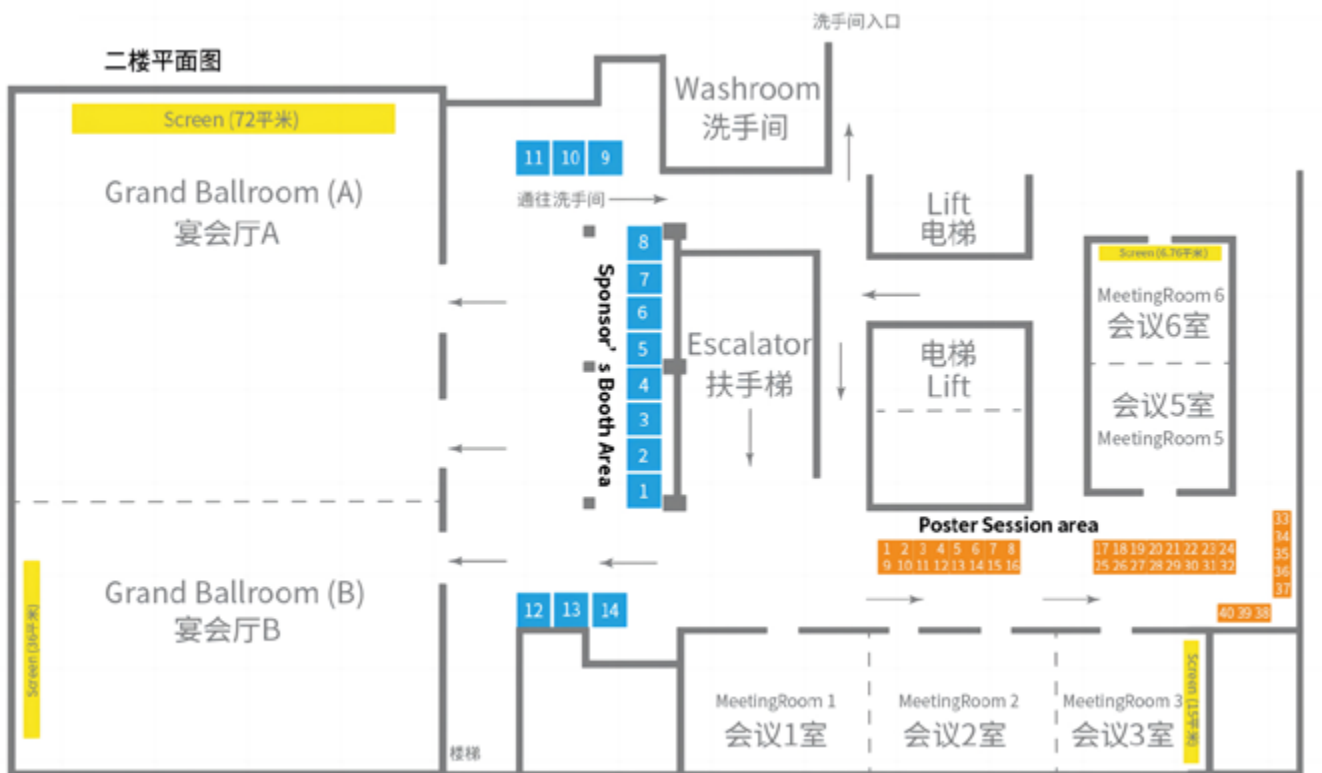
5 Main Conference & Workshops:14 October	15
Keynote Talk 1: Arman Cohan	16
Industrial Talk 1: Fuzheng Zhang	17
Keynote Talk 2: Xia "Ben" Hu	18
Industrial Talk 2: Tianhuang Su	19
Oral Paper Sessions	20
Baidu Workshop	23
China Mobile Workshop	27
Poster Session	33
LLMs & Applications Workshop	39
6 Main Conference & Workshops: 15 October	45
Keynote Talk 3: Denny Zhou	46
Keynote Talk 4: Diyi Yang	47
Oral Paper Sessions	48
Student Workshop	53
Evaluation Workshop	56

Organization

NLPCC (CCF International Conference on Natural Language Processing & Chinese Computing) is the annual conference of CCF TCNLP (Technical Committee of Natural Language Processing, China Computer Federation). As a leading conference on the field of NLP & Chinese Computing of CCF, NLPCC is the premier forum for the NLP researchers and practitioners from academia, industry, and government in China and Pacific Asia area to share their ideas, research results and experiences, which will highly promote the research and technical innovation in these fields domestically and internationally.

Conference Venues

InterContinental Foshan
Level 2, Grand Ballroom and Meeting Rooms Floor Plan



Conference Agenda

■ Tutorials

12 October		Meeting Room 1+2+3, 2nd Floor
08:45-10:15	Lecture 1: Knowledge Analysis, Extraction and Enhancement in Pre-trained Language Models	Yubo Chen
10:30-12:00	Lecture 2: Recent Advances in LLM-based Autonomous AI Agent	Xu Chen
14:00-15:30	Lecture 3: Towards Deep, Broad, and Dynamic Language Understanding on Social Media	Jing Li
15:45-17:15	Lecture 4: Medical large language models, the practice from HuatuoGPT	Benyou Wang

13 October		Meeting Room 1+2+3, 2nd Floor
08:45-10:15	Lecture 5: Large Language Model-Powered Multi-Agent Interaction	Baotian Hu
10:30-12:00	Lecture 6: Text-Guided Image and Video Editing: Progress and Challenges	Jingjing Chen
14:00-15:30	Lecture 7: Pre-training Methods in Information Retrieval: Advances and Challenges	Yixing Fan
15:45-17:15	Lecture 8: Generative Retrieval	Pengjie Ren

■ Main Conference & Workshops

14 October		
08:30-09:00	Opening Ceremony	Grand Ballroom (A+B), 2nd Floor
09:00-10:00	Keynote Talk 1 by Arman Cohan	Grand Ballroom (A+B), 2nd Floor
10:00-10:15	Industrial Talk 1 by Fuzheng Zhang	Grand Ballroom (A+B), 2nd Floor
10:15-10:45	Break & Group Photo	Outdoor Plaza
10:45-11:45	Keynote Talk 2 by Xia "Ben" Hu	Grand Ballroom (A+B), 2nd Floor
11:45-12:00	Industrial Talk 2 by Tianhuang Su	Grand Ballroom (A+B), 2nd Floor
12:00-13:30	Lunch (Buffet)	Commune, 1st Floor/ Ole'Ole Bar, 6th Floor
13:30-15:30	Oral Session 1	Meeting Room 2+3, 2nd Floor
	Oral Session 2	Meeting Room 5+6, 2nd Floor
	Baidu Workshop	Grand Ballroom (B), 2nd Floor
	China Mobile Workshop	Grand Ballroom (A), 2nd Floor
15:30-16:00	Break	
15:30-18:00	Poster Session	Poster Session Area, 2nd Floor
16:00-18:00	Oral Session 3	Meeting Room 2+3, 2nd Floor
	LLMs & Applications Workshop	Meeting Room 5+6, 2nd Floor
	China Mobile Workshop	Grand Ballroom (A), 2nd Floor
18:30-21:00	Dinner (Banquet)	Grand Ballroom (A+B), 2nd Floor

■ Main Conference & Workshops

15 October		
9:00-10:00	Keynote Talk 3 by Denny Zhou	Grand Ballroom (A+B), 2nd Floor
10:00-10:30	Break	
10:30-11:30	Keynote Talk 4 by Diyi Yang	Grand Ballroom (A+B), 2nd Floor
11:30-13:00	Lunch (Buffet)	Commune, 1st Floor/ Ole'Ole Bar, 6th Floor
13:00-15:00	Oral Session 4	Meeting Room 2+3, 2nd Floor
	Oral Session 5	Meeting Room 5+6, 2nd Floor
	Student Workshop	Grand Ballroom (B), 2nd Floor
	Evaluation Workshop	Grand Ballroom (A), 2nd Floor
15:00-15:15	Break	
15:15-17:15	Oral Session 6	Meeting Room 2+3, 2nd Floor
	Oral Session 7	Meeting Room 5+6, 2nd Floor
	Oral Session 8	Grand Ballroom (B), 2nd Floor
	Evaluation Workshop	Grand Ballroom (A), 2nd Floor
17:15-18:00	NLPCC Awards & Next NLPCC Location Election & Closing Ceremony	Grand Ballroom (A+B), 2nd Floor
18:00-21:00	Dinner (Buffet)	Commune, 1st Floor/ Ole'Ole Bar, 6th Floor

Tutorials: 12-13 Oct

■ Schedule

12 October		Meeting Room 1+2+3, 2nd Floor
08:45-10:15	Lecture 1: Knowledge Analysis, Extraction and Enhancement in Pre-trained Language Models	Yubo Chen
10:30-12:00	Lecture 2: Recent Advances in LLM-based Autonomous AI Agent	Xu Chen
14:00-15:30	Lecture 3: Towards Deep, Broad, and Dynamic Language Understanding on Social Media	Jing Li
15:45-17:15	Lecture 4: Medical large language models, the practice from HuatuoGPT	Benyou Wang
13 October		Meeting Room 1+2+3, 2nd Floor
08:45-10:15	Lecture 5: Large Language Model-Powered Multi-Agent Interaction	Baotian Hu
10:30-12:00	Lecture 6: Text-Guided Image and Video Editing: Progress and Challenges	Jingjing Chen
14:00-15:30	Lecture 7: Pre-training Methods in Information Retrieval: Advances and Challenges	Yixing Fan
15:45-17:15	Lecture 8: Generative Retrieval	Pengjie Ren

Lecture 1

Knowledge Analysis, Extraction and Enhancement in Pre-trained Language Models

Yubo Chen

Thursday, 12 Oct, 08:45-10:15

Abstract: Recently, large-scale pre-trained language models have made remarkable progress in knowledge-intensive natural language processing tasks. It seems to indicate that pretrained language models can naturally learn extensive knowledge from the corpus and implicitly encode it in the parameters. However, the underlying mechanisms behind the phenomenon remain unknown. Questions such as what knowledge has been acquired by language models, how to extract and utilize the knowledge, and how external knowledge can be incorporated to address the limitations of models, are all awaiting further exploration. In this tutorial, we will focus on introducing recent research advancements in the knowledge analysis, knowledge extraction, and knowledge enhancement of pre-trained language models.



Speaker: Yubo Chen is an Associate Researcher at the Institute of Automation, Chinese Academy of Sciences. His research interests include Knowledge Graph, Natural Language Processing and Large Language Model. He has published 40+ papers on ACL, EMNLP, COLING, CIKM, WWW and AAI. His work has been cited over 4500 times on Google Scholar. Two of his papers have been selected as high-impact papers at ACL and EMNLP (Paper Digest selection), and he has received multiple Best Paper Awards (NLP-NABD 2016, CCKS 2017, CCL 2020, CCKS 2020). He was selected for the 5th China Association for Science and Technology Youth Talent Lifting Project in 2020, and was recognized as a Global Chinese AI Young Scholar in 2022, a member of the Youth Innovation Promotion Association of the Chinese Academy of

Sciences in 2022. He serves as the Secretary-General of the Youth Working Committee of the Chinese Information Processing Society of China, Area Chair of the COLING 2022, Editorial Board Member of Data Intelligence. He was awarded the first prize of the "Qian Weichang Chinese Information Processing Science and Technology Award" by the Chinese Information Processing Society of China in 2018 and the first prize of the Beijing Science and Technology Progress Award in 2019.

Lecture 2

Recent Advances in LLM-based Autonomous AI Agent

Xu Chen

Thursday, 12 Oct, 10:30-12:00

Abstract: In recent years, research on AI agents based on large language models, represented by Generative Agents, has attracted widespread attention from researchers. This report focuses on the construction of autonomous AI agents based on large language models and their applications in the field of user behavior analysis. It provides an overview of key technologies for building general and domain-specific AI agents using large language models, analyzes the existing challenges in this field, and outlines future development directions.



Speaker: **Xu Chen** is a tenure-track associate professor from Gaoling School of Artificial Intelligence, Renmin University of China. Before joining Renmin University of China, he was a research fellow at University College London, UK. Xu Chen obtained his PhD degree from Tsinghua University. His research interests lie in recommender system, causal inference and reinforcement learning. He has published more than 60 papers on top-tier conferences/journals like TheWebConf, AIJ, TKDE, SIGIR, WSDM and TOIS. As co-leaders, He has developed recommender library "RecBole", explainable recommendation dataset "REASONER" and LLM-based recommender simulator "RecAgent". His papers have won the best resource paper runner up award on CIKM 2022, best paper honorable mention award on the Web Conference 2018 and best paper award on AIRS 2017. He has also obtained CCF Science and Technology Achievement Award (Natural Science Award Second Prize), and ACM-Beijing Rising Star award.

Lecture 3

Towards Deep, Broad, and Dynamic Language Understanding on Social Media

Jing Li

Thursday, 12 Oct, 14:00-15:30

Abstract: Social media platforms have become the popular outlet for people to share ideas, voice opinions, and discuss topics they are interested in. Meanwhile, the deluge of overloaded content streaming through social media in real-time is far outpacing the human capacity to read and understand language. It consequently presents a pressing need to automate the process of natural language understanding (NLU) on social media. Today, although the state-of-the-art (SOTA) NLU models based on large language models (LLMs) have demonstrated promising results on many benchmarks, the realistic social media scenarios may still exhibit grand challenges beyond the capabilities of SOTA NLU models to effectively tackle. On the one hand, models would face ambiguous language, users in diversity, and context ever evolving, all requiring models to cope with deep semantics, broad users, and dynamic environments. On the other hand, existing NLU models, far from the mastery of language grounding in the world, are unable to well deduce meanings of the unknown and ideas between lines. In light of these concerns, this talk will center around a key question: what do we essentially need to apply NLU in the real social media world? I will summarize my past, present, and future research of how to enable NLU models to better tackle deep semantics in ambiguous expressions (deep understanding), broad varieties of social media users (broad understanding), and dynamic environments continuously generating new features (dynamic understanding). From here we will start a journey towards a more robust NLU on social media, which will allow the real-world applications to be genuinely benefited from the innovative research findings.



Speaker: Dr. Jing Li is an Assistant Professor of the Department of Computing, The Hong Kong Polytechnic University (PolyU) since 2019. Before joining PolyU, she worked in the Natural Language Processing Center, Tencent AI Lab as a senior researcher from 2017 to 2019. Jing obtained her PhD degree from the Department of Systems Engineering and Engineering Management, The Chinese University of Hong Kong in 2017. Before that, she received her B.S. degree from Department of Machine Intelligence, Peking University in 2013. Jing has been working with NLP research for over 10 years, with the background from both academia and industry. She has broad research interests in Natural Language Processing, Computational Social Science, and Machine Learning. Particularly, she works on novel algorithms for language representation learning, social media language understanding, conversation and social interaction modeling, and

robust NLP and multimodal applications in noisy real-world applications. She regularly publishes in the top-tier NLP conferences and journals and has been invited to serve in the organization and program committee in many of these venues. Her research is substantially supported by competitive research funds from NSFC, HKSAR Research Grant Committee (RGC), HKSAR Innovation and Technology Fund (ITF), CCF-Tencent, CCF-Baidu, etc.

Lecture 4

Medical large language models, the practice from HuatuoGPT

Benyou Wang

Thursday, 12 Oct, 15:45-17:15

Abstract: The large models have brought significant changes to natural language processing. They can provide users with useful information in some general areas, enhancing learning and work efficiency. However, their performance in specialized domains still lags behind domain experts, such as experienced doctors and lawyers. To build expert-level models in specialized domains, a myriad of issues emerge, spanning evaluation, training, data, regulation, efficiency, etc. This report will focus on the medical field's Huatuo GPT as a foundation to elaborate on the challenges, practices, and future of specialized domain large models. The access link to Huatuo GPT is <https://www.huatuoqpt.cn/>. The practices of Huatuo GPT may also offer valuable insights for other specialized domains.



Speaker: Benyou Wang is an assistant professor and a deputy director of the Health informatics Center, at the School of Data Science at the Chinese University of Hong Kong (Shenzhen). He is also a research scientist at the Shenzhen Institute of Big Data. To date, he has received the Best Paper Award honorable mention at SIGIR 2017, the Best Interpretable NLP Paper at NAACL 2019, the Best Paper Award at NLPC2022, the Huawei Spark Award, and the European Union Marie Curie Scholarship. The research team he leads has developed large models including the multi-language Phoenix model (supporting Chinese) and the medical and health domain model, HuatuoGPT.

Lecture 5

Large Language Model-Powered Multi-Agent Interaction

Baotian Hu

Friday, 13 Oct, 08:45-10:15

Abstract: Recently, large Language Models (LLMs) have demonstrated human-like intelligence and revolutionized various applications in artificial intelligence, encouraging the emerging exploration of LLM-powered autonomous agents. With LLMs as the brain, the agent interacts with its environment to resolve complex goals, complemented by task planning, memory, tool usage, etc.

Inspired by the promising agent demos such as AutoGPT, there has been a surge in research focusing on multi-agent interactions, particularly in studying the behaviour of agents in a simulated game setting. Through competition and cooperation, multiple agents can autonomously improve each other in factuality, reasoning and safety.

There are still many unanswered questions and research directions on this topic. In this tutorial, we will first introduce the background and components of LLM-powered agents, then take three multi-agent interactions (i.e., generative agents simulation, competition and cooperation) as examples, review the technical development, and finally discuss the future direction of the topic.



Speaker: Baotian Hu is an associate professor at Computer Science Department of Harbin Institute of Technology, Shenzhen. He is also Deputy Secretary General of China Chinese Information Processing Society (CIPS) Medical Health and Biological Information Processing Professional Committee and Deputy Secretary General of the Artificial Intelligence Professional Committee of Shenzhen Computer Society. He received his B.A. in Information and Computing Science from the Shandong University of Science and Technology in 2010, and his M.S. and Ph.D. in Computer Science from the Harbin Institute of Technology in 2012 and 2016 respectively. He was a visiting researcher at Huawei Noah's Ark Laboratory (Hong Kong), a senior researcher at WeChat of Tencent Technology Co., LTD., and a postdoctoral researcher at the University of Massachusetts, USA. His research interests focus on LLM and its applications. He has published 50+ technical papers at prestigious international journals and conferences.. He was nominated for Outstanding Ph.D. Dissertation by the Chinese Language Information Society of China in 2018 and awarded as Outstanding Ph.D. Dissertation for the centennial anniversary of Harbin Institute of Technology. He was invited to serve as Area Chair (AC) or Senior Program Committee Member (SPC) at prestigious academic conferences including ACL2023, EMNLP2022, IJCAI2021/2023, AACL2022.

Lecture 6

Text-Guided Image and Video Editing: Progress and Challenges

Jingjing Chen

Friday, 13 Oct, 10:30-12:00

Abstract: In recent years, diffusion models have demonstrated outstanding capabilities in visual generation. Beyond their prowess in image generation, these models have also captivated researchers by offering the potential to employ textual descriptions for guiding content editing in both images and videos, thereby fostering more creative and personalized visual presentation. However, the application of pretrained diffusion models to editing real images and videos in specific contexts remains confronted with challenges. One such challenge involves accurately capturing the diversity and contextual information of textual descriptions to ensure alignment between editing outcomes and the original intent. Additionally, achieving real-time editing and large-scale application stands as another issue to be addressed. This report delves into the challenges and obstacles faced by pretrained diffusion models in visual editing, while also providing a comprehensive overview of existing research accomplishments and showcasing the latest advances in this field.



Speaker: Jingjing Chen is an Associate Professor at the School of Computer Science and Technology, Fudan University. Before that, She obtained her Ph.D. degree from City University of Hong Kong in 2018, and from September 2018 to July 2019, she worked as a postdoctoral researcher at the National University of Singapore. Her primary research areas include multimedia content analysis, computer vision, and multimedia model security. Her research output includes over 70 papers published in prominent international conferences and journals such as ACM Multimedia, CVPR, ICCV, AAAI, ICMR, IEEE TIP, and IEEE TMM. Her research works have received recognition from academic organizations in China and beyond, and she has received several accolades,

including the Best Student Paper Award at the ACM Multimedia in 2016, the Best Student Paper Award at the Multimedia Modeling conference in 2017, the Best Paper Award at the China Multimedia Conference in 2022, "ACM Shanghai Rising Star Award" in 2020 and the "AI 2000 Most Influential Scholar Nomination Award" in 2021. Moreover, she was also listed on the 2023 Baidu "AI Chinese Women's Young Scholars List".

Lecture 7

Pre-training Methods in Information Retrieval: Advances and Challenges

Yixing Fan

Friday, 13 Oct, 14:00-15:30

Abstract: In recent years, with the development of deep learning technology, the integration of information retrieval and natural language processing has become increasingly profound. Pre-trained models, as an important method in the field of NLP, have also been widely used in information retrieval. This tutorial focuses on the application of pre-trained models in information retrieval and systematically reviews related research in recent years. The main contents include: 1) background: introduction of basic concepts of information retrieval; 2) the application of pre-trained models in the first-stage retrieval: including the application of pre-trained models in sparse retrieval and dense retrieval; 3) the application of pre-trained models in the re-ranking stage: including representation learning methods, interactive learning methods, and model acceleration; 4) generative information retrieval: including document identifier representation, architecture design, and optimization strategy.



Speaker: **Yixing Fan** is an associate researcher from institute of computing technology, chinese academy of sciences. His primary research areas include information retrieval, natural language retrieval, etc. He has published around 40 papers in top-tier conferences and journals, including but not limited to SIGIR, WWW, CIKM, TOIS, FnTIR. He was selected for the 6th China Association for Science and Technology Youth Talent Lifting Project in 2021, as well as the Youth Innovation Promotion Association of the Chinese Academy of Sciences in 2021. He serves as the Local Organization Chair for the SIGIR-AP 2023 and the CCIR 2023, Program Committee Chair of WI-IAT 2022, Program Committee Member of SIGIR 2023, CIKM2023, SIGIR2022, CIKM2022, TheWebConf2022, WSDM2022, and so on.

Lecture 8**Generative Retrieval***Pengjie Ren*Friday, 13 Oct, 15:45-17:15

Abstract: Generative retrieval is an emerging paradigm for information retrieval, which employs generative models to directly generate document identifiers for a given query. Compared to traditional sparse retrieval and dense retrieval, generative retrieval is an end-to-end approach and can better leverage the capabilities of recently advanced large language models. In this tutorial, I will introduce the progress we made so far towards generative retrieval, including identifier design, training strategy, dynamic corpora, and so on. I will conclude with a discussion of generative retrieval in the era of large language models and present some open challenges for future research.



Speaker: Pengjie Ren is a professor of IRLab at Shandong University. Before that, he was a postdoc researcher at the Informatics Institute, University of Amsterdam. His research interests fall in natural language processing, information retrieval, etc. He has published around 100 papers in top-tier conferences and journals, including but not limited to ACM SIGIR, The Web Conference (WWW), ACL, KDD, AAI, EMNLP, ACM TOIS, IEEE TKDE, AIJ, etc. Several of his papers from CIKM and SIGIR are selected the most influential papers of the year. Parts of his research works won the outstanding doctoral dissertation of Shandong province, the CIKM best paper runner-up award, the NLPCC best student paper award, etc.

Main Conference and Workshop: 14 Oct

Time	Session	Venue
08:30-09:00	Opening Ceremony	Grand Ballroom (A+B), 2nd Floor
09:00-10:00	Keynote Talk 1 by Arman Cohan	Grand Ballroom (A+B), 2nd Floor
10:00-10:15	Industrial Talk 1 by Fuzheng Zhang	Grand Ballroom (A+B), 2nd Floor
10:15-10:45	Break & Group Photo	Outdoor Plaza
10:45-11:45	Keynote Talk 2 by Xia "Ben" Hu	Grand Ballroom (A+B), 2nd Floor
11:45-12:00	Industrial Talk 2 by Tianhuang Su	Grand Ballroom (A+B), 2nd Floor
12:00-13:30	Lunch (Buffet)	Commune, 1st Floor/ Ole'Ole Bar, 6th Floor
13:30-15:30	Oral Session 1	Meeting Room 2+3, 2nd Floor
	Oral Session 2	Meeting Room 5+6, 2nd Floor
	Baidu Workshop	Grand Ballroom (B), 2nd Floor
	China Mobile Workshop	Grand Ballroom (A), 2nd Floor
15:30-16:00	Break	
15:30-18:00	Poster Session	Poster Session Area, 2nd Floor
16:00-18:00	Oral Session 3	Meeting Room 2+3, 2nd Floor
	LLMs & Applications Workshop	Meeting Room 5+6, 2nd Floor
	China Mobile Workshop	Grand Ballroom (A), 2nd Floor
18:30-21:00	Dinner (Banquet)	Grand Ballroom (A+B), 2nd Floor

Keynote Talk 1

14 Oct, Chair: *Fei Liu*
09:00-10:00, Grand Ballroom (A+B), 2nd Floor

Piecing the Puzzle: Language Models for Multi-Document Contexts

Arman Cohan

Abstract: Large language models have shown significant capabilities in a variety of NLP tasks. Despite several advances, their abilities for processing multi-document tasks remain less explored. In this talk, I will first discuss our earlier work focusing on the extension of long-context language models for tasks that necessitate cross-document understanding, such as multi-document summarization. Subsequently, I will delve into our work on enhancing these models to manage both short and long-form generation across multiple documents. This work proposes a novel pre-training approach to improve the language models' ability to understand and integrate cross-document information. I will then present our recent work on extreme multi-document scenarios and the role of retrieval, providing further insights into these tasks. This talk describes joint work with Avi Caciuluru, Wen Xiao, John Giorgi, Yilun Zhao, and several other collaborators.



Bio: **Arman Cohan** is an Assistant Professor of Computer Science at Yale University and a faculty Research Scientist at the Allen Institute for AI (AI2). His research spans various problems at the intersection of Natural Language Processing and Machine Learning, including Language Modeling, Representation Learning, Generation, and their applications to specialized domains include science. His research has been recognized with multiple awards, including a best paper award at EMNLP, an outstanding paper award at EACL, and an honorable mention at COLING. Prior to joining Yale, he was a Research Scientist at the Allen Institute for AI (AI2) and an Affiliate Assistant Professor at University of Washington.

Homepage: <https://armancohan.com/>.

Industrial Talk 1

14 Oct

10:00-10:15, Grand Ballroom (A+B), 2nd Floor

[KwaiYii] Foundation Models: Decoding Information and Embracing Intelligence

Fuzheng Zhang

Abstract: With the release of ChatGPT and GPT-4, large-scale foundation models are demonstrating accelerated iterative cycles and substantial improvements in capabilities even at high performance levels. These models are exhibiting performance that surpasses average human levels and, in some domains, even reaches the pinnacle of human capability, signaling the potential for immense social and commercial impact. [KwaiYii] is a series of large-scale foundation models, including Large Language Models (LLMs), domain-specific large models, and multi-modal large models, developed from scratch by the Kuaishou AI team. [KwaiYii] excels in foundational technology and have achieved state-of-the-art results in the majority of authoritative Chinese and English benchmarks such as MMLU, C-Eval, CMMLU, and HumanEval, all while being comparable in size to other available models. Featuring excellent language comprehension and generation capabilities, [KwaiYii] supports a wide array of tasks, including content creation, information consultation, mathematical logic, code writing, and multi-turn dialogue. Human evaluations indicate that [KwaiYii] has reached industry-leading standards, particularly in Chinese language contexts.



Bio: Dr. Zhang Fuzheng, the head of Kuaishou's Natural Language Processing Center and Audio Center, is also in charge of the [Kwai-Yii] Foundation Models Project. He has long been involved in the construction of AI technologies such as Natural Language Processing, multimodal processing, and knowledge graphs, as well as their specific applications in business scenarios. He has published over 60 papers in top-tier conferences and journals in related fields like KDD, WWW, ACL, EMNLP, and has more than 10,000 Google Scholar citations. He has served as reviewers for relevant academic activities for an extended period. Dr. Zhang has been named on Stanford University's "The World's Top 2% Scientists List", the "AI 2000 Most Influential Scholars in Artificial Intelligence for the Year 2023," and the "2019 Benchmark Figures in Knowledge Graphs for Artificial Intelligence in China".

Keynote Talk 2

14 Oct, Chair: *Fei Liu*
10:45-11:45, Grand Ballroom (A+B), 2nd Floor

ChatGPT in Action: An Experimental Investigation of Its Effectiveness in NLP Tasks

Xia "Ben" Hu

Abstract: The recent progress in large language models has resulted in highly effective models like OpenAI's ChatGPT that have demonstrated exceptional performance in various tasks, including question answering, essay writing, and code generation. This presentation will cover the evolution of LLMs from BERT to ChatGPT and showcase their use cases. Although LLMs are useful for many NLP tasks, one significant concern is the inadvertent disclosure of sensitive information, especially in the healthcare industry, where patient privacy is crucial. To address this concern, we developed a novel framework that generates high-quality synthetic data using ChatGPT and fine-tunes a local offline model for downstream tasks. The use of synthetic data improved the performance of downstream tasks, reduced the time and resources required for data collection and labeling, and addressed privacy concerns. Finally, we will discuss the regulation of LLMs, which has raised concerns about cheating in education. We will introduce our recent survey on LLM-generated text detection and discuss the opportunities and challenges it presents.



Bio: Dr. Xia “Ben” Hu is an Associate Professor at Rice University in the Department of Computer Science. Dr. Hu has published over 200 papers in several major academic venues, including NeurIPS, ICLR, KDD, WWW, IJCAI, AAAI, etc. An open-source package developed by his group, namely AutoKeras, has become the most used automated deep learning system on Github (with over 8,000 stars and 1,000 forks). Also, his work on deep collaborative filtering, anomaly detection and knowledge graphs have been included in the TensorFlow package, Apple production system and Bing production system, respectively. His papers have received ten Best Paper (Candidate) awards from venues such as ICML, WWW, WSDM, ICDM, AMIA and INFORMS. He is the recipient of NSF CAREER Award and ACM SIGKDD Rising Star Award. His work has been cited more than 20,000 times with an h-index of 60. He is the conference General Co-Chair for WSDM 2020 and ICHI 2023. He is also the founder of AI POW LLC.

Homepage: <https://cs.rice.edu/~xh37/index.html>.

Industrial Talk 2

14 Oct

11:45-12:00, Grand Ballroom (A+B), 2nd Floor

New Breeno: AI Assistant Powered by Large Language Models

Su Tianhuang

Abstract: In this talk, a general introduction to Breeno, the AI assistant on OPPO smartphones and IoT devices, will be given first. Then Tianhuang will share the two stages of how Breeno adopts large language models in its dialog system. The first stage refers to OBERT series based on bert architecture for natural language understanding, and the second stage AndesGPT series are based on decoder-only architecture. In addition, he will share several useful skills (e.g. universal representation) for project engineering on dialog system.



Bio: **Su Tianhuang** is the Head of Natural Language Processing and Pretraining Team in OPPO Breeno Intelligent Center. Breeno is the AI assistant on OPPO smartphones and IoT devices. Tianhuang graduated from Sun Yat-sen University, and joined OPPO in 2020 after working as an algorithm engineer in Baidu. His main research interests include natural language processing, dialog conversation and search engine, and has published papers in top conferences and journals such as KDD, etc. Currently, he is committed to leading Breeno's NLP and Pretraining team to realize a smarter dialog system with Large Language Models.

Oral Paper Sessions

Oral Paper Session 1: Dialogue and QA (Meeting Room 2+3, 2nd Floor)Session Chair: *Pengjie Ren*

- 13:30-13:45 A Task-oriented Dialog Model with Task-progressive and Policy-aware Pre-training
Lucen Zhong, Hengtong Lu, Caixia Yuan, Xiaojie Wang, Jiashen Sun, Ke Zeng and Guanglu Wan
- 13:45-14:00 Retrieval-Augmented Knowledge-Intensive Dialogue
Zelin Wang, Ping Gong, Yibo Zhang, Jihao Gu and Xuanyuan Yang
- 14:00-14:15 CrossDial: An Entertaining Dialogue Dataset of Chinese Crosstalk
Baizhou Huang, Shikang Du and Xiaojun Wan
- 14:15-14:30 Episode-based Prompt Learning for Any-shot Intent Detection
Pengfei Sun, Dingjie Song, Yawen Ouyang, Zhen Wu and Xinyu Dai
- 14:30-14:45 Fine-grained Question-Answer Matching via Sentence-aware Contrastive Self-supervised Transfer
Jingjing Wang, Jiamin Luo and Guodong Zhou
- 14:45-15:00 Mixture-of-Experts for Biomedical Question Answering
Damai Dai, Wenbin Jiang, Jiyuan Zhang, Yajuan Lyu, Zhifang Sui and Baobao Chang
- 15:00-15:15 NAPG: Non-Autoregressive Program Generation for Hybrid Tabular-Textual Question Answering
Tengxun Zhang, Hongfei Xu, Josef van Genabith, Deyi Xiong and Hongying Zan
- 15:15-15:30 KARN: Knowledge Augmented Reasoning Network for Question Answering
Lishuang Li, Huxiong Chen, Xueyang Qin, Jiangyuan Dong and Zehao Wang
-

Oral Paper Sessions

Oral Paper Session 2: Fundamentals of NLP (Meeting Room 5+6, 2nd Floor)

Session Chair: *Zhenghua Li*

- 13:30-13:45 ASKSpell: Adaptive Surface Knowledge Enhances Tokens' Semantic Representations for Chinese Spelling Check
Xiaobin Lin, Jindian Su, Xugang Zhou, Xiaobin Ye and Dandan Ma
- 13:45-14:00 SCA-CLS: A New Semantic-Context-Aware Framework for Community-Oriented Lexical Simplification
Rongying Li, Wenxiu Xie, John Lee and Tianyong Hao
- 14:00-14:15 RMGCN: Masked Graph Convolutional Networks for Relation-Aware Entity Alignment with Dangling Cases
Xinyu Liu, Feng Zhou and Xiaoyong Li
- 14:15-14:30 MCVIE: An Effective Batch-Mode Active Learning for Multi-Label Text Classification
Xuan Cheng, Feng Zhou, Qing Wang, Yitong Wang and Yiting Wang
- 14:30-14:45 An Adaptive Learning Method for Solving the Extreme Learning Rate Problem of Transformer
Jianbang Ding, Xuancheng Ren and Ruixuan Luo
- 14:45-15:00 A New Encoder Using Character and Word Feature Fusion for Chinese Math Word Problem Solving
Wenqing Huang and Jing Xiao
- 15:00-15:15 MarkBERT: Marking Word Boundaries Improves Chinese BERT
Linyang Li, Yong Dai, Duyu Tang, Xipeng Qiu, Zenglin Xu and Shuming Shi
- 15:15-15:30 Recurrent Transformers for Long Document Understanding
Chuzhan Hao, Peng Zhang, Minghui Xie and Dongming Zhao
-

Oral Paper Sessions

Oral Paper Session 3: Multimodality (Meeting Room 2+3, 2nd Floor)

Session Chair: *Meiling Liu*

- 16:00-16:15 CAMG: Context-Aware Moment Graph Network for Multimodal Temporal Activity Localization via Language
Yuelin Hu, Yuanwu Xu, Yuejie Zhang, Rui Feng, Tao Zhang, Xuequan Lu and Shang Gao
- 16:15-16:30 Semantic Extension for Cross-Modal Retrieval of Medical Image-Diagnosis Report
Guohui Ding, Qi Zhang, Shizhan Geng and Chunlong Fan
- 16:30-16:45 Bounding and Filling: A Fast and Flexible Framework for Image Captioning
Zheng Ma, Changxin Wang, Bo Huang, Zixuan Zhu and Jianbing Zhang
- 16:45-17:00 通过多特征优化 Transformer 生成放射学报告
Rui Wang, Rong Hua and Jianguo Liang
- 17:00-17:15 一种消减多模态偏见的鲁棒视觉问答方法
Fengshuo Zhang, Yu Li, Jinan Xu and Yufeng Chen
- 17:15-17:30 Task-consistent Meta Learning for Low-resource Speech Recognition
Yaqi Chen, Hao Zhang, Yang Xukui, Wenlin Zhang and Dan Qu
- 17:30-17:45 ECOD: A Multi-Modal Dataset for Intelligent Adjudication of E-Commerce Order Disputes
Liyi Chen, Shuaipeng Liu, Hailei Yan, Jie Liu, Lijie Wen and Guanglu Wan
- 17:45-18:00 MACO: A Modality Adversarial and Contrastive Framework for Modality-missing Multi-modal Knowledge Graph Completion
Yichi Zhang, Zhuo Chen and Wen Zhang
-
-

Baidu Workshop

14 Oct
13:30-15:20, Grand Ballroom (B), 2nd Floor

Application Practice of LLMs in Baidu Search

Introduction: The integration of Baidu Search and LLMs today is providing users with even greater value. AI has redefined search, transforming Baidu Search from a simple list of web results based on text input to an intelligent search engine that can "listen and see." Its understanding and adaptability to user queries have continuously improved, making its content and services more accurate and diverse, and it has become increasingly user-friendly. In this session, three engineers from Baidu Search will each discuss their explorations into the integration of LLMs, the practical applications of generative question-answering, and the open-source retrieval engine PUCK. We welcome everyone to join our conversation.

Time	Topic	Speaker
13:30-14:10	The LLM is refactoring the search engine	Haibo
14:10-14:50	Application of Generative Question Answering in Search Engine	Xiaodong
14:50-15:20	PUCK: Open Source Search Engine	Jie

Baidu Workshop

14 Oct
13:30-14:10, Grand Ballroom (B), 2nd Floor

The LLM is refactoring the search engine

Haibo

Abstract: The advent of large language models has opened up vast new possibilities for search engines, significantly enriching the quality of search query responses due to their advanced comprehension and reasoning abilities. In this presentation, we'll take a broad look at how Baidu Search harnesses the power of Large Language Models, with a special emphasis on the LLM, to enhance and reshape its search engine functionality. Additionally, we'll explore the potentially revolutionary shifts and emerging trends this technology may introduce in the future.



Bio: **Haibo** currently serves as the Tech Lead of Intelligent Question-Answering Technology for Baidu Search and is responsible for the application of large-scale models in search. He graduated from the EECS program at Peking University. Haibo has an in-depth expertise in machine learning, natural language processing, question answering, as well as in the pre-training and fine-tuning applications of large generative models.

Baidu Workshop

14 Oct

14:10-14:50, Grand Ballroom (B), 2nd Floor

Application of Generative Question Answering in Search Engine

Xiaodong

Abstract: This report primarily introduces the generative question-answering application based on search results. With the development of generative LLMs, search engine also embraces significant changes. For the questions posed by users in the search engine, by organizing multiple search results, we can provide accurate, comprehensive, and efficient answers, thereby achieving one-shot satisfaction. However, in the search scenario, there are many challenges, such as the accuracy of search reference results, the credibility of generated results, time constraints in search engine, etc. The report introduces a series of solutions to these challenges.



Bio: Xiaodong is Baidu senior R & D engineer. He received Ph.D degree in Computer Science from Peking University. His research interests include natural language processing, question answering and dialogue system. He has published articles on AACL, IJCAI, ACL, etc. Currently he mainly focuses on large language model and question answering in Baidu Search.

Baidu Workshop

14 Oct
14:50-15:20, Grand Ballroom (B), 2nd Floor

PUCK : Open Source Search Engine

Jie

Abstract: In this talk, Speaker will introduce and summarize Approximate nearest neighbors(ANN) search methods. Then, introduce Puck which is an open source search engine library developed by Baidu. Puck has ranked first in multiple billion-scale datasets in the Big-ANN competition and significantly outperforms its competitors on multiple data sets including millions, billions, and billions. Puck is used extensively in Baidu's services, which supports trillions of index size and massive search requests.



Bio: **Jie** is Baidu senior R & D engineer. She is responsible for the optimization and application of Puck.

China Mobile Workshop

14 Oct

13:30-17:30, Grand Ballroom (A), 2nd Floor

Exploration and Application of Holistic AI + Large Language Model

Introduction: Since the release of ChatGPT at the end of November 2022, the Large Language Model has quickly become the focus of the industry. With the continuous upgrading of the large-scale foundation model, the large language model shows increasingly impressive level of intelligence. The powerful ability of the large language model has opened the prelude to the generalization of artificial intelligence, providing all sectors with the ability to optimize business scenario efficiency, thereby promoting industrial change.

Holistic Artificial Intelligence is about systematically reconstructing artificial intelligence technology around industry applications, computing power, and models. The aim is to realize intelligence in the entire process and in all aspects from AI-related production factors to production objects and business objectives. Relying on ubiquitous networks and AI computing power, intelligent management and operation of all factors and scenarios can be realized, while ensuring the confidence, controllability, and security of AI businesses. With business leading the way, AI technology is deeply integrated into the actual scenarios of social production and life.

Focusing on large language models and Holistic Artificial Intelligence, this workshop explores the model of "Large Language Model + Holistic AI". We have invited well-known scholars and experts to deliver keynote speeches, sharing their explorations and understanding of Holistic AI and large language models, and discussing how to realize the generalized application of "Holistic AI + Large Language Model" in various scenarios.

Time	Schedule	Speaker
13:30-13:45	Opening Speech	Zhijian Ou
13:45-14:15	Holistic AI: Thinking and Practice	Junlan Feng
14:15-14:20	Q&A	
14:20-14:50	Knowledge-Enhanced Large Language Models: Knowledge Injection and Retrieval Enhancement	Xiaocheng Feng
14:50-14:55	Q&A	
14:55-15:25	Method for Aspect-based Sentiment Analysis on Social Comment Text	Tao Qin
15:25-15:30	Q&A	
15:30-16:00	Knowledge-Retrieval Dialog Systems with Semi-Supervision	Zhijian Ou
16:00-16:05	Q&A	
16:05-16:35	Network Intelligence with the Wave of Big Models	Yong Zhang
16:35-16:40	Q&A	
16:40-17:30	Discussion	

China Mobile Workshop

14 Oct

13:45-14:15, Grand Ballroom (A), 2nd Floor

Holistic AI: Thinking and Practice

Junlan Feng

Abstract: The speech explores the thought and practice of Holistic AI. The speaker will share the thought about Holistic AI and discuss the relationship between large language models and Holistic AI, such as the method of construction of autonomous and controllable general foundation large models suitable for universal scenarios. Also, the speaker will discuss the practice of Holistic AI in various scenarios including network, customer service, government affairs, medical and other industries. In addition, the speaker will discuss the possibility of construction of high-reliability, high-dynamic self-adaptive industry large language models.



Bio: Junlan Feng, IEEE Fellow, Chief Scientist of China Mobile, Vice Chairman of the China Artificial Intelligence Industry Alliance, Board Chair of Linux Foundation Network (2020-2023). Dr. Feng received her Ph.D. on Speech Recognition from Chinese Academy of Sciences, and joined AT&T Labs Research in 2001, as a principal researcher until 2013. Dr. Feng joined China Mobile Research in 2013. Since then, she has been leading the AI R&D center of China Mobile - Jiutian. She and the Jiutian team have published over 150 technical research papers, hold 700+ patents, won 16 AI algorithm competition awards, won 20+ national-level and province-level technical awards, undertaken 16 national-level research projects, initiated and led 86% international standards on network intelligence. Jiutian products and AI models under her leadership have been deployed to 3700+ production services and contributed yearly commercial value of 3.9 billion Chinese Yuan. Dr. Feng is a frequent reviewer and program member of major top AI conferences and journals. She had been elected as a member of IEEE speech and natural language processing committee, IEEE industry committee, etc.

China Mobile Workshop

14 Oct

14:20-14:50, Grand Ballroom (A), 2nd Floor

Knowledge-Enhanced Large Language Models: Knowledge Injection and Retrieval Enhancement

Xiaocheng Feng

Abstract: In this talk, Xiaocheng Feng will provide a comprehensive insight into knowledge-enhanced large language models for both academic and industrial researchers. Regarding how to use external knowledge bases and corpus to enhance large language models, he will introduce two methods: knowledge injection and retrieval enhancement. Then, he will discuss their potential and limitations in solving real-world problems. In addition, he will introduce his recent work: retrieval-generation synergy to augment large language models. Finally, he will discuss current research challenges and potential future directions. Finally, he will discuss current research challenges and potential future directions.



Bio: Xiaocheng Feng , Associate Professor of the Faculty of Computer, Harbin Institute of Technology (HIT). He is a member of the Research Center for Social Computing and Information Retrieval (SCIR) and leads the Text Generation team. His research topics currently focus on text generation and machine translation. Dr. Feng achieved the China National Conference on Computational Linguistics (CCL) 2021 BEST Paper Award. He was selected as a member of the Young Elite Scientist Sponsorship Program by the China Association for Science and Technology, 2020-2022, and his Ph.D. Dissertation was selected as one of the Best Ph.D. Dissertations by the Chinese Information Processing Society of China.

China Mobile Workshop

14 Oct
14:55-15:25, Grand Ballroom (A), 2nd Floor

Method for Aspect-based Sentiment Analysis on Social Comment Text

Tao Qin

Abstract: In this talk, we will introduce a new framework designed for accurately aspect sentiment triplet extraction. By introducing rich syntactics and flexible semantics and interactively fuse them to encode into the text representation, we try to learn more task-related information and improve the model's ability to extract aspect sentiment triplets. Furthermore, we also focusing on developing methods for cross domain aspect sentiment triplet extraction. We employ generative model with prompt-tuning to generate target domain data and the pseudo-labels to achieve the goal of triplet extraction from the unlabeled target domain.



Bio: **Tao Qin**, Full Professor of the department of Computer Science and Technology, Xi'an Jiaotong University, China. His current research interests include online social network analysis, network traffic analysis and network security. His research achievements have won the 2008 IEEE CSIM Best Paper Award, the First Prize of Science and Technology Progress in Shaanxi Province in 2013 and 2023 respectively, and the Best Resource Paper Award in CCKS 2021.

China Mobile Workshop

14 Oct

15:30-16:00, Grand Ballroom (A), 2nd Floor

Knowledge-Retrieval Dialog Systems with Semi-Supervision

Zhijian Ou

Abstract: Recently, a progress in question answering and document-grounded dialog systems is retrieval-augmented methods with a knowledge retriever. Inspired by such progress, we propose a retrieval-based method to enhance knowledge selection in task-oriented dialog systems, which significantly outperforms the traditional database query method for real-life dialogs. Further, we develop latent variable model based semi-supervised learning, which can work with the knowledge retriever to leverage both labeled and unlabeled dialog data. Joint Stochastic Approximation (JSA) algorithm is employed for semi-supervised model training, and the whole system is referred to as JSA-KRTOD. Experiments are conducted on a real-life dataset from China Mobile Custom-Service, called MobileCS, and show that JSA-KRTOD achieves superior performances in both labeled-only and semi-supervised settings.



Bio: Zhijian Ou, Associate Professor of the Department of Electronic Engineering, Tsinghua University. He received his Ph.D. from Tsinghua University in 2003. He currently serves as Associate Editor of “IEEE/ACM Transactions on Audio, Speech and Language Processing”, Editorial Board Member of “Computer Speech and Language”, member of IEEE Speech and Language Processing Technical Committee, and was General Chair of SLT 2021, Tutorial Chair of INTERSPEECH 2020, General Chair of EMNLP 2022 SereTOD Workshop. He has actively led national research projects as well as research funding from China Mobile, He has actively led national research projects as well as research funding from China Mobile, China

Unicom, Apple, IBM, Intel, Panasonic, Toshiba and so on. His research interests are AI speech and language processing.

China Mobile Workshop

14 Oct
16:05-16:35, Grand Ballroom (A), 2nd Floor

Network Intelligence with the Wave of Big Models

Yong Zhang

Abstract: The speech explores how to implement network intelligence in the wave of large models. First, the author discusses the relationship between large language models and network intelligence, and analyze the methods for implementing network intelligence from the perspective of tasks, data, and intelligent models. Finally, the speaker shares the challenges and emerging problems faced in implementing systematic network intelligence.



Bio: Yong Zhang, Professor of the department of Electronic Engineering, Beijing University of Posts and Telecommunications. He was the Director of Fab.X Artificial Intelligence Research Center, BUPT. He is the Deputy Head of the mobile internet service and platform working group, China communications standards association. In the past five years, he has been working in the field of network intelligence, including network traffic prediction, network anomaly detection, root cause analysis, intelligent resource allocation, the integration of intelligence service, computing and network, etc.

Posters Session

Posters Session (Poster Session Area, 2nd Floor)

- P-1 A Unified Generation Approach for Robust Dialogue State Tracking
Zijian Lin, Beizhang Guo, Tianyuan Shi, YunHao Li, Xiaojun Quan and Liangzhi Li
- P-2 An Explicit-Memory Few-shot Joint Learning Model
fanfan du, MeiLing Liu, Tiejun Zhao and Shafqat Ali
- P-3 A Noise-Removal of Knowledge Graph Framework for Profile-based Spoken Language Understanding
Leyi Lao, Peijie Huang, Zhanbiao Zhu, Hanlin Liu, Peiyi Lian and Yuhong Xu
- P-4 Bilevel Scheduled Sampling for Dialogue Generation
Jiawen Liu and Kan Li
- P-5 Dial-QP: A Multi-Tasking and Keyword-Guided Approach for Enhancing Conversational Query Production
Jiong Yu, Sixing Wu, Shuoxin Wang, Haosen Lai and Wei Zhou
- P-6 Discourse Relation-Aware Multi-turn Dialogue Response Generation
Huijie Wang, Ruifang He, Yungang Jia, Jing Xu and Bo Wang
- P-7 A Benchmark for Understanding Dialogue Safety in Mental Health Support
Huachuan Qiu, Tong Zhao, Anqi Li, Shuai Zhang, Hongliang He and Zhenzhong Lan
- P-8 Span-based Pair-wise Aspect and Opinion Term Joint Extraction with Contrastive Learning
Jinjie Yang, Fenghuan Li, Feipeng Dai and Yun Xue
- P-9 Annotation Quality Measurement in Multi-Label Annotations
Sheng Li, Rong Yan, Qing Wang, Juru Zeng, Xun Zhu, Yueke Liu and Henghua Li
- P-10 Prompt-free Few-shot Learning with ELECTRA for Acceptability Judgment
Linqin Li, Zicheng Li, Ying Chen, Shoushan Li and Guodong Zhou
- P-11 Dual Hierarchical Contrastive Learning for Multi-level Implicit Discourse Relation Recognition.
Jing Xu, Ruifang He, Haodong Zhao, Huijie Wang and Lei Zeng
- P-12 Towards Malay Abbreviation Disambiguation: Corpus and Unsupervised Model
Haoyuan Bu, Nankai Lin, Lianxi Wang and Shengyi Jiang
- P-13 Topic Tracking from Classification Perspective: New Chinese Dataset and Novel Temporal Correlation Enhanced Model
Jin Ma, Xinming Zhang, Yuxun Fang, Xinyu Zuo and Haijin Liang

Posters Session (Poster Session Area, 2nd Floor)

- P-14** A Multi-granularity Similarity Enhanced Model for Implicit Event Argument Extraction
Yanhe Fu, Yi Liu, Yanan Cao, Yubing Ren, Qingyue Wang, Fang Fang and Cong Cao
- P-15** Multi-Perspective Feature Fusion for Event-Event Relation Extraction
Wei Liu, Zhangdeng Pang, Shaorong Xie and Weimin Li
- P-16** Joint Cross-Domain and Cross-Lingual Adaptation for Chinese Opinion Element Extraction
Ruoding Zhang, Meishan Zhang and Xiaoyi Song
- P-17** A Relational Classification Network Integrating Multi-Scale Semantic Features
Gang Li, Jiakai Tian, Mingle Zhou, Min Li and Delong Han
- P-18** A Novel Semantic-Enhanced Time-Aware Model for Temporal Knowledge Graph Completion
Yashen Wang, Li Li, Meng Jian, Yi Zhang and Xiaoye Ouyang
- P-19** Dual-Prompting Interaction with Entity Representation Enhancement for Event Argument Extraction
Ruifang He, Mengnan Xiao, Jinsong Ma, Junwei Zhang, Haodong Zhao, Shiqi Zhang and Jie Bai
- P-20** Collective Entity Linking with Joint Subgraphs
Kedong Wang, Yu Xia and Fang Kong
- P-21** Coarse-to-Fine Entity Representations for Document-level Relation Extraction
Damai Dai, Jing Ren, Shuang Zeng, Baobao Chang and Zhifang Sui
- P-22** 基于交叉注意力多源数据增强的情境感知查询建议方法
Naizhou Zhang and Wei Cao
- P-23** Research on Named Entity Recognition Based on Bidirectional Pointer Network and Label Knowledge Enhancement
Zhengyun Wang, Yong Zhang, Xinyi Sun and Xin Li
- P-24** UKT: A Unified Knowledgeable Tuning Framework for Chinese Information Extraction
Jiyong Zhou, Chengyu Wang, Junbing Yan, Jianing Wang, Yukang Xie, Jun Huang and Ying Gao
- P-25** SSUIE 1.0: A Dataset for Chinese Space Science and Utilization Information Extraction
Yunfei Liu, Shengyang Li, Chen Wang, Xiong Xiong, Yifeng Zheng, Linjie Wang and Shiyi Hao
- P-26** Extract Then Adjust: A Two-Stage Approach for Automatic Term Extraction
Jiangyu Wang, Chong Feng, Fang Liu, Xinyan Li and Xiaomei Wang

Posters Session (Poster Session Area, 2nd Floor)

- P-27 UniER: A Unified and Efficient Entity-Relation Extraction Method with Single-Table Modeling
Sha Liu, Dongsheng Wang, Yue Feng, Miaomiao Zhou and Xuwen Zhu
- P-28 Multi-Task Biomedical Overlapping and Nested Information Extraction Model Based on Unified Framework
Xinyu He, Shixin Li, Guangda Zhao, Xue Han and Qiangjian Zhuang
- P-29 NTAM: A New Transition-based Attention Model for Nested Named Entity Recognition
Nan Gao, Bowei Yang, Yongjian Wang and Peng Chen
- P-30 Learning Well-separated and Representative Prototypes for Few-shot Event Detection
Xintong Zhang, Shasha Li, Bin Ji and Ting Wang
- P-31 RAC-BERT: Character Radical Enhanced BERT for Ancient Chinese
Lifan Han, Xin Wang, Meng Wang, Zhao Li, Heyi Zhang, Zirui Chen and Xiaowang Zhang
- P-32 Neural Knowledge Bank for Pretrained Transformers
Damai Dai, Wenbin Jiang, Qingxiu Dong, Yajuan Lyu and Zhifang Sui
- P-33 Chatgpt 可否充当情感专家? 调查其在情感与隐喻分析的潜力
Yazhou Zhang, Mengyao Wang, Lu Rong, Yang Yu, Dongming Zhao and Jing Qin
- P-34 A Frustratingly Easy Improvement for Position Embeddings via Random Padding
Mingxu Tao, Yansong Feng and Dongyan Zhao
- P-35 IDOS: A Unified Debiasing Framework via Word Shuffling
Yuanhang Tang, Yawen Ouyang, Zhen Wu, Baohua Zhang, Jiaying Zhang and Xinyu Dai
- P-36 FedEAE: Federated Learning Based Privacy-preserving Event Argument Extraction
Fei Hu, Shenpo Dong, Tao Chang, Jie Zhou, Haili Li, Jingnan Wang, Rui Chen, Haijiao Liu and Xiaodong Wang
- P-37 Event Contrastive Representation Learning Enhanced with Image Situational Information
Wei Liu, Qi Wu, Shaorong Xie and Weimin Li
- P-38 Promoting Open-domain Dialogue Generation through Learning Pattern Information between Contexts and Responses
Mengjuan Liu, Chenyang Liu, Yunfan Yang, Jiang Liu and Mohan Jing
- P-39 Neural News Recommendation with Interactive News Encoding and Mixed User Encoding
Xintao Jiao, Yongjie Que, Qinghao Zhong and Jiale Liu
- P-40 CD-BLI: Confidence-Based Dual Refinement for Unsupervised Bilingual Lexicon Induction
Shenglong Yu, Wenya Guo, Ying Zhang and Xiaojie Yuan

Posters Session (Poster Session Area, 2nd Floor)

- P-41 A Novel POS-guided Data Augmentation Method for Sign Language Gloss Translation
Shan Liu, Yafang Zheng, Lei Lin, Yidong Chen and Xiaodong Shi
- P-42 Faster and More Robust Low-Resource Nearest Neighbor Machine Translation
Shuo Sun, Hongxu Hou, Zongheng Yang and Yisong Wang
- P-43 Towards Effective Ancient Chinese Translation: Dataset, Model, and Evaluation
Geyang Guo, Jiarong Yang, Fengyuan Lu, Jiaxin Qin, Tianyi Tang and Wayne Xin Zhao
- P-44 Two-stage Adaptation for Cross-corpus Multimodal Emotion Recognition
Zhaopei Huang, Jinming Zhao and Qin Jin
- P-45 Knowledgeable Salient Span Mask for Enhancing Language Models as Knowledge Base
Cunxiang Wang, Fuli Luo, Yanyang Li, Runxin Xu and Yue Zhang
- P-46 A Text-Image Pair Is Not Enough: Language-Vision Relation Inference with Auxiliary Modality Translation
Wenjie Lu, Dong Zhang, Shoushan Li and Guodong Zhou
- P-47 Enriching Semantic Features for Medical Report Generation
栾琪, 潘海为, 张可佳, 史坤 and 贾西腾
- P-48 Entity-related Unsupervised Pretraining with Visual Prompts for Multimodal Aspect-based Sentiment Analysis
Kuanghong Liu, Jin Wang and Xuejie Zhang
- P-49 ZeroGen: Zero-shot Multimodal Controllable Text Generation with Multiple Oracles
Haoqin Tu, Bowen Yang and Xianfeng Zhao
- P-50 DialogueSMM: Emotion Recognition in Conversation with Speaker-aware Multimodal Multi-head Attention
Changyong Niu, Shuo Xu, Yuxiang Jia and Hongying Zan
- P-51 QAE: A Hard-label Textual Attack Considering the Comprehensive Quality of Adversarial Examples
Miaomiao Li, Jie Yu, Jun Ma, Shasha Li, Huijun Liu, Mengxue Du and Bin Ji
- P-52 IMTM: Invisible Multi-Trigger Multimodal Backdoor Attack
Zhicheng Li, Piji Li, Xuan Sheng, Changchun Yin and Lu Zhou
- P-53 Enhancing Similar Case Matching with Event-Context Detection in Legal Intelligence
Jingpei Dan, Lanlin Xu, Weixuan Hu, Yuming Wang and Yingfei Wang
- P-54 Unsupervised Clustering with Contrastive Learning for Rumor Tracking on Social Media
Yang Wu, Chen Song, Zhitong Lu, Chunlei Jing, Pengwei Zhan, Zhen Xu and Liming Wang

Posters Session (Poster Session Area, 2nd Floor)

- P-55 EP-Transformer: Efficient Context Propagation for Long Document
Chunmei Xie, Hang Wang, Siye Chen, Shihan Ma, Tiantian Huang, Fengyi Li, Wenkang Huang and Hongbin Wang
- P-56 Cross and Self Attention Based Graph Convolutional Network for Aspect-based Sentiment Analysis
Mao Zhang, Sijie Teng and Linli Xu
- P-57 KESDT: Knowledge Enhanced Shallow and Deep Transformer for Detecting Adverse Drug Reactions
Yunzhi Qiu, Xiaokun Zhang, Weiwei Wang, Tongxuan Zhang, Bo Xu and Hongfei Lin
- P-58 CCAE: A Corpus of Chinese-based Asian Englishes
Yang Liu, Melissa Xiaohui Qin, Long Wang and Chao Huang
- P-59 Emotionally-Bridged Cross-Lingual Meta-Learning for Chinese Sexism Detection
Guanlin Li, Praboda Rajapaksha, Reza Farahbakhsh and Noel Crespi
- P-60 CCPC: A Hierarchical Chinese Corpus for Patronizing and Condescending Language Detection
Hongbo Wang, Mingda Li, Junyu Lu, Liang Yang, Hebin Xia and Hongfei Lin
- P-61 FGCS: A Fine-grained Scientific Information Extraction Dataset in Computer Science Domain
Hao Wang, Jing-Jing Zhu, Wei Wei, Heyan Huang and Xian-Ling Mao
- P-62 Improving Event Representation for Script Event Prediction via Data Augmentation and Integration
Yuting Liu, Kun Ding, Fengxiao Guo, Ming Liu, Liu Liu, Baowei Wang and Yi Sun
- P-63 双向注意力文本关键词匹配法条推荐
丁娜, 刘鹏, 邵惠. 鹏 and 王学. 奎
- P-64 Beyond Hard Samples: Robust and Effective Grammatical Error Correction with Cycle Self-Augmenting
Kaiqi Feng, Zecheng Tang, Juntao Li and Min Zhang
- P-65 DAAL: Domain Adversarial Active Learning Based on Dual Features for Rumor Detection
Zhang Ran, Gao Min, Huang Yin Qiu, Jiang Feng, Wang Jia and Wen Jun Hao
- P-66 CCC: Chinese Commercial Contracts Dataset for Documents Layout Understanding
Shu Liu, Yongnan Jin, Harry Lu, Shangqing Zhao, Man Lan, Yuefeng Chen and Hao Yuan
- P-67 基于知识图谱和预训练语言模型深度融合的可解释生物学推理
Yinxin Xu, Bin Shou Dong, Bao Zong Yang, Chen Yu Lin and Hu Jinlong

Posters Session (Poster Session Area, 2nd Floor)

- P-68 OnMKD: An Online Mutual Knowledge Distillation Framework for Passage Retrieval
Jiali Deng, Dongyang Li, Taolin Zhang and Xiaofeng He
- P-69 Unsupervised Clustering for Negative Sampling to Optimize Open-domain Question Answering Retrieval
Feiqing Zhuang, Conghui Zhu and Tiejun Zhao
- P-70 Enhancing In-Context Learning with Answer Feedback for Multi-Span Question Answering
Zixian Huang, Jiaying Zhou, Gengyang Xiao and Gong Cheng
- P-71 A Hybrid Summarization Method for Legal Judgment Documents Based on Lawformer
Jingpei Dan, Weixuan Hu, Lanlin Xu, Yuming Wang and Yingfei Wang
- P-72 Enhancing Semantic Consistency in Linguistic Steganography via Denosing Auto-Encoder and Semantic-Constrained Huffman Coding
Shuoxin Wang, Fanxiao Li, Jiong Yu, Haosen Lai, Sixing Wu and Wei Zhou
- P-73 Review Generation Combined with Feature and Instance-Based Domain Adaptation for Cross-Domain Aspect-Based Sentiment Analysis
Xiuwei Lv, Zhiqiang Wang and Lei Ju
- P-74 WikiIns: A High-Quality Dataset for Controlled Text Editing by Natural Language Instruction
Xiang Chen, Zheng Li and Xiaojun Wan
- P-75 Medical Report Generation Based on Segment-Enhanced Contrastive Representation Learning
Ruoqing Zhao, Xi Wang, Hongliang Dai, Pan Gao and Piji Li
- P-76 Enhancing MOBA Game Commentary Generation with Fine-Grained Prototype Retrieval
Haosen Lai, Jiong Yu, Shuoxin Wang, Dawei Zhang, Sixing Wu and Wei Zhou
- P-77 Fantastic Gradients and Where to Find Them: Improving Multi-Attribute Text Style Transfer by Quadratic Program
Qian Qu, Jian Wang, Kexin Yang, Hang Zhang and Jiancheng Lv
- P-78 TiBERT: A Non-autoregressive Pre-trained Model for Text Editing
Baoxin Wang, Ziyue Wang, Wanxiang Che, dayong wu, Rui Zhang, Bo Wang and Shijin Wang
- P-79 集成显著性话语上下文窗口采样方法的长对话摘要生成模型
杰 吴, 鹏鸣 王 and 正坤 熊

LLMs and Applications Workshop

14 Oct

16:00-18:00, Meeting Room 5+6, 2nd Floor

Time	Schedule	Speaker
16:00-16:25	AI Foundation Models at Huawei Noah's Ark Lab	Linlin Li
16:25-16:50	Qwen: Open Foundation, Human-Aligned and Specialist Models	Junyang Lin
16:50-17:15	JittorLLM: An efficient large model training and inference framework based on Jittor	Dun Liang
17:15-17.40	Enhancing Large Language Models with Legal Knowledge	Yansong Feng
17.40-18.05	Machine Translation and Large Language Models: Universal Translation and AGI	Deyi Xiong

LLMs and Applications Workshop

14 Oct
16:00-16:25, Meeting Room 5+6, 2nd Floor

AI Foundation Models at Huawei Noah's Ark Lab

Linlin Li

Abstract: The latest progress on LLMs has drawn enormous research interest in large language modelling among the artificial intelligence community. In this talk, we introduce our latest progress on LLM-based foundation models including Pangu-alpha, Pangu-sigma, and other multimodal based approaches. Meanwhile, we also introduce how we integrate knowledge via information retrieval and how we extend the capability of the raw LLMs by integrating various tools. The talk is started by an introduction of the foundation model Pangu-alpha, followed by Pangu-sigma which is a MoE version of the LLM that aims at efficient compute. Then, we introduce our work on how to leverage web/domain search components and various tools/plugins into our model to solve complex tasks. In the last part, we give a brief introduction of multimodal approaches which process not only text-based info but also image- and audio-based content.



Bio: **Linlin Li** is a senior research scientist at Huawei Noah's Ark Lab. Her major research interest is in the field of Natural Language Processing. Linlin Li received her Ph.D degree in Computer Science from Saarland University, Germany, with a dissertation titled Computational Modelling of Lexical Ambiguity. She joined Microsoft soon after graduation and worked in Europe for several years before moving back to China and joining Alibaba in Hangzhou. She joined Huawei in 2019 and has been working on NLP related projects in Huawei ever since. She has published over 30 papers in top NLP conferences and journals such as ACL, EMNLP, NAACL and Computational Linguistics.

LLMs and Applications Workshop

14 Oct

16:25-16:50, Meeting Room 5+6, 2nd Floor

Open Foundation, Human-Aligned and Specialist Models

Junyang Lin

Abstract: LLMs has remarkable potentials to use external tools and understand multimodal data like humans. Recently we have publicly released Qwen-7B and Qwen-14B, as well as their assistant models, Qwen-7b-Chat and Qwen-14B-Chat. These models demonstrate strong performance and significantly outperform the baselines on a series of benchmark. We reinforce the models on tool use and thus they have the potential to become powerful AI agents for downstream applications. Additionally, based on the Qwen models, we continue pretraining on code and math data, and produce the specialist models Code-Qwen and Math-Qwen, which pave a way towards training domain-specific experts. In this talk, I will give a brief introduction to our models and the techniques that make a difference in building a strong LLM.



Bio: Junyang Lin is a staff engineer in Alibaba Group. He graduated from Peking University. His research interests are on natural language processing and multimodal representation learning, with a focus on large-scale pretraining. He has published articles on NeurIPS, ICML, ACL, etc. Previously, he developed the extremely large-scale pretrained model M6, unified multimodal multitask model OFA, cross-modal representation model Chinese CLIP, etc. Recently, he is leading the development of the large language model, Qwen, and working on pretraining, alignment, multimodal integration and AI agent.

LLMs and Applications Workshop

14 Oct
16:50-17:15, Meeting Room 5+6, 2nd Floor

JittorLLM: An efficient large model training and inference framework based on Jittor

Liang Dun

Abstract: Jittor Large Model Engine (JittorLLM) supports model training, fine-tuning and inference, making it easy for everyone to train large models without worries. This talk will introduce the latest technical advances of the domestic deep learning framework Jittor in large model inference and training. Jittor is a deep learning framework built entirely on just-in-time compilation with innovative meta operators and a unified computation graph. Meta operators are as easy to use as Numpy but go beyond Numpy in enabling more complex and efficient operations. The unified computation graph combines the many advantages of static and dynamic graphs, providing high performance optimization while remaining easy to use. Deep learning models built with meta operators can be optimized in real-time by Jittor and run on specified heterogeneous computing devices like CPU, GPU and TPU.



Bio: **Liang Dun** is a postdoctoral researcher at the Department of Computer Science and Technology, Tsinghua University. He received his PhD from the Computer Graphics Lab at the same department. He is a core member of the Jittor framework. In recent years, he has published papers in major conferences and journals such as Science China Information Sciences, CVPR and TOG. He was also the champion of the International Student Supercomputer Competition.

LLMs and Applications Workshop

14 Oct

17:15-17:40, Meeting Room 5+6, 2nd Floor

Enhancing Large Language Models with Legal Knowledge

Yansong Feng

Abstract: Large Language Models (LLMs) have exhibited remarkable performance across various natural language understanding tasks. Nevertheless, when deployed to specific domains such as law or medicine, LLMs still face the challenge of a deficiency in domain-specific knowledge and an inadequate capability to leverage that knowledge. In this talk, I will introduce a new framework to adapt LLMs to specific domains and, specifically, how we build the Lawyer LLaMA, a legal domain LLM, based on this framework.



Bio: Yansong Feng is an associate professor in the Wangxuan Institute of Computer Technology at Peking University. Before that, he obtained his PhD from ICCS (now ILCC) at the University of Edinburgh. His current research interests include using neural methods to distill knowledge from large volumes of natural language texts, and supporting intelligent human-computer interfaces. He has served as Senior Action Editor or Area Chair for ACL ARR and *ACL conferences. Yansong received the IBM Faculty Award in 2014 and 2015, and the IBM Global Shared University Research Award in 2016.

LLMs and Applications Workshop

14 Oct

17:40-18:05, Meeting Room 5+6, 2nd Floor

Machine Translation and Large Language Models: Universal Translation and AGI

Deyi Xiong

Abstract: There has been a remarkable increase in the scale of models in both machine translation and language modeling in recent years. In this talk, I will introduce our recent works of scaling MT from large language models, including studies on knowledge transfer from pretrained LMs or MT models to NMT via modularization, structured MoE for very large NMT, sparsifying multilingual language models for MT and efficient in-context learning for LLM-based MT. To conclude this talk, I'll discuss limitations of LLMs and their relations with universal translation as well as AGI.



Bio: Deyi Xiong is a Professor of Computer Science at Tianjin University (TJU), Director of both the Natural Language Processing Laboratory at the College of Intelligence and Computing, TJU and the International Joint Research Center of Language Intelligence and Technology at TJU. Prior to joining TJU, he was a professor at Soochow University and a research scientist at the Institute for Infocomm Research, Singapore. His research focuses on natural language processing, specifically machine translation, dialogue, large language models and commonsense reasoning. He has published over 150 papers in prestigious journals and conferences, including Computational Linguistics, IEEE TPAMI, IEEE TASLP, Artificial Intelligence, AAAI, IJCAI ACL, and EMNLP. He is the first author of the book "Linguistically Motivated Statistical Machine Translation: Models and Algorithms" published by Springer and the Chinese book "Neural Machine Translation: Foundations, Principles, Practices and Frontiers". He was the program co-chair of IALP 2021 and CWMT 2017, co-sponsorship chair of AACL 2022 and EMNLP 2023. He has also served as an (senior) area chair of conferences including ACL, EMNLP, NAACL and COLING. He was the founder and co-organizer of multiple ACL/EMNLP/NAACL-affiliated workshops such as S2MT 2015, SedMT 2016 and DiscoMT 2019. He is a member of the standing committee of reviewers of CL, action editor of both TACL and ARR, and associate editor of ACM TALLIP and DiB.

Main Conference and Workshop: 15 Oct

Time	Session	Venue
9:00-10:00	Keynote Talk 3 by Denny Zhou	Grand Ballroom (A+B), 2nd Floor
10:00-10:30	Break	
10:30-11:30	Keynote Talk 4 by Diyi Yang	Grand Ballroom (A+B), 2nd Floor
11:30-13:00	Lunch (Buffet)	Commune, 1st Floor/ Ole'Ole Bar, 6th Floor
13:00-15:00	Oral Session 4	Meeting Room 2+3, 2nd Floor
	Oral Session 5	Meeting Room 5+6, 2nd Floor
	Student Workshop	Grand Ballroom (B), 2nd Floor
	Evaluation Workshop	Grand Ballroom (A), 2nd Floor
15:00-15:15	Break	
15:15-17:15	Oral Session 6	Meeting Room 2+3, 2nd Floor
	Oral Session 7	Meeting Room 5+6, 2nd Floor
	Oral Session 8	Grand Ballroom (B), 2nd Floor
	Evaluation Workshop	Grand Ballroom (A), 2nd Floor
17:15-18:00	NLPCC Awards & Next NLPCC Location Election & Closing Ceremony	Grand Ballroom (A+B), 2nd Floor
18:00-21:00	Dinner (Buffet)	Commune, 1st Floor/ Ole'Ole Bar, 6th Floor

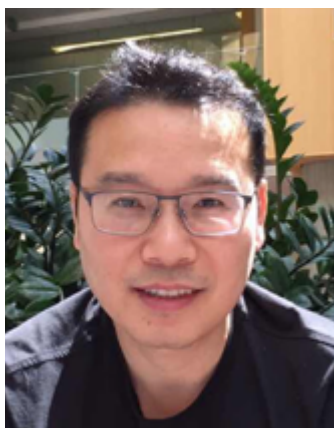
Keynote Talk 3

15 Oct, Chair: *Nan Duan*
09:00-10:00, Grand Ballroom (A+B), 2nd Floor

Teach Language Models to Reason

Denny Zhou

Abstract: Over the past decades, the machine learning community has developed tons of data-driven techniques aimed at enhancing learning efficiency, like semi-supervised learning, meta learning, active learning, transfer learning, and more. However, none of these techniques have proven to be highly effective for real-world natural language processing tasks. This shortcoming uncovers a fundamental flaw in machine learning - the absence of reasoning. Humans often learn from just a few examples because of their capacity to reason, as opposed to relying on data statistics. In this talk, I will talk about the large language models (LLM) reasoning work that we pioneered, and show that the techniques we developed can greatly narrow the gap between human intelligence and machine learning: crushed SoTA in the literature while demanding only a few annotated examples and no training. Our work was presented by Google CEO Sundar Pichai at Google I/O 2021 as a showcase of Google AI.



Bio: **Denny Zhou** is a principal scientist / research director in Google DeepMind, where he founded and leads the Reasoning Team. His research is centered around building and teaching large language models (LLMs) to achieve human-level reasoning. His notable work includes chain-of-thought prompting, self-consistency decoding, least-to-most prompting, instruction tuning (FLAN2), LLMs self-debugging and various investigations of emergent properties of LLMs. He won Google Research Tech Impact Award in 2022.

Homepage: <https://dennyzhou.github.io/>.

Keynote Talk 4

15 Oct, Chair: *Nan Duan*

10:30-11:30, Grand Ballroom (A+B), 2nd Floor

Human-Centered NLP for Positive Impact

Diyi Yang

Abstract: Large language models have revolutionized the way humans interact with AI systems, transforming a wide range of fields and disciplines. However, there is a growing amount of evidence and concern about the negative aspects of NLP systems such as biases and the lack of input from users. How can we build NLP systems that are more user-centric and more aware of human factors? In this talk, we will present two case studies on how human-centered design can be leveraged to build responsible NLP applications. The first one looks at linguistic prejudice with a participatory design approach to develop dialect-inclusive language tools and adaptation techniques for low-resourced language and dialect. The second part introduces CARE, an interactive AI agent that supports therapists through LLM-empowered feedback and deliberative practices, as an initial step toward democratizing skill training with AI. We conclude by discussing the challenges and hidden risks for building human-centered NLP systems for positive impact.



Bio: **Diyi Yang** is an assistant professor in the Computer Science Department at Stanford University. Her research interests are computational social science and human-centered natural language processing. Her work has received multiple best paper nominations or awards at top NLP and HCI conferences (e.g., ACL, EMNLP, SIGCHI, and CSCW). She is a recipient of IEEE “AI 10 to Watch” (2020), the Intel Rising Star Faculty Award (2021), the Samsung AI Researcher of the Year (2021), the Microsoft Research Faculty Fellowship (2021), and the NSF CAREER Award (2022).

Homepage: <https://cs.stanford.edu/~diyi/>.

Oral Paper Sessions

Oral Paper Session 4: IE and Knowledge Graph (Meeting Room 2+3, 2nd loor)Session Chair: *Juntao Li*

- 13:00-13:15 DialogRE^{C+}: An Extension of DialogRE to Investigate How Much Coreference Helps Relation Extraction in Dialogs
Yiyun Xiong, Mengwei Dai, Fei Li, Hao Fei, Bobo Li, Shengqiong Wu, Chong Teng and Donghong Ji
- 13:15-13:30 A Bi-directional Multi-hop Inference Model for Joint Dialog Sentiment Classification and Act Recognition
Li Zheng, Fei Li, Yuyang Chai, Chong Teng and Donghong Ji
- 13:30-13:45 PromptCL: Improving Event Representation via Prompt Template and Contrastive Learning
Yubo Feng, Lishuang Li, Yi Xiang and Xueyang Qin
- 13:45-14:00 Learning to Attentively Represent Distinctive Information for Semantic Text Matching
Junjie Wang, Rui Peng and Yu Hong
- 14:00-14:15 SymCoNLL: A Symmetry-based Approach for Document Coreference Resolution
Ying Mao, Xinran Xie, Lishun Wang, Yong Zhong and Zheyu Shi
- 14:15-14:30 融合知识的文博领域低资源命名实体识别方法研究
Chao Li, Xia Hou and Xiuming Qiao
- 14:30-14:45 Interest Aware Dual-channel Graph Contrastive Learning for Session-based Recommendation
Sichen Liu, Shumin Shi and Dongyang Liu
- 14:45-15:00 Label-guided Compressed Prototypical Network for Incremental Few-shot Text Classification
Yongjie Wang, Minghao Hu, Xiantao Xu, Wei Luo and Zhunchen Luo
-

Oral Paper Sessions

Oral Paper Session 5: Translation and Summarization (Meeting Room 5+6, 2nd Floor)

Session Chair: *Benyou Wang*

- 13:00-13:15 Towards Better Translations from Classical to Modern Chinese: A New Dataset and a New Method
Zongyuan Jiang, Jiapeng Wang, Jiahuan Cao, Xue Gao and Lianwen Jin
- 13:15-13:30 Monolingual Denoising with Large Language Models for Low-Resource Machine Translation
Haoyu Xu, Xing Wang, Xiaolin Xing and Yu Hong
- 13:30-13:45 Towards Making the Most of LLM for Translation Quality Estimation
Hui Huang, Shuangzhi Wu, Xinnian Liang, Bing Wang, Yanrui Shi, Peihao Wu, Muyun Yang and Tiejun Zhao
- 13:45-14:00 Imitation Attacks Can Steal More than You Think from Machine Translation Systems
Tianxiang Hu, Pei Zhang, Baosong Yang, Jun Xie and Rui Wang
- 14:00-14:15 rT5: A Retrieval-Augmented Pre-Trained Model for Ancient Chinese Entity Description Generation
Mengting Hu, Xiaoqun Zhao, Jiaqi Wei, Jianfeng Wu, Xiaosu Sun, Zhengdan Li, Yike Wu, Yufei Sun and Yuzhi Zhang
- 14:15-14:30 Probing Bilingual Guidance for Cross-Lingual Summarization
Dawei Zhu, Wenhao Wu and Sujian Li
- 14:30-14:45 Accurate, Diverse and Multiple Distractor Generation with Mixture of Experts
Fanyi Qu, Che Wang and Yunfang Wu
- 14:45-15:00 Improve the Diversity and Novelty for Open-ended Neural Text Generation via Inverse Probability Weighting
Xinran Zhang, Maosong Sun, Jiafeng Liu and Xiaobing Li
-

Oral Paper Sessions

Oral Paper Session 6: IE and Knowledge Graph (Meeting Room 2+3, 2nd Floor)Session Chair: *Meishan Zhang*

- 15:15-15:30 What Makes a Charge? Identifying Charge-Discriminative Facts with Legal Elements
Xiyue Luo, WenHan Chao, Xian Zhou, Lihong Wang and Zhunchen Luo
- 15:30-15:45 A Joint Entity and Relation Extraction Approach Using Dilated Convolution and Context Fusion
Wenjun Kong, Yamei Xia, Wenbin Yao and Tianbo Lu
- 15:45-16:00 Reasoning through Memorization: Nearest Neighbor Knowledge Graph Embeddings
Peng Wang, Xin Xie, Xiaohan Wang and Ningyu Zhang
- 16:00-16:15 Chinese Event Causality Identification Based on Retrieval Enhancement
Yumiao Gao, Yizhi Ren, Jiawei Rao, Zuohua Chen, Qisen Xi, Haoda Wang, Dong Wang and Lifeng Yuan
- 16:15-16:30 UZNER a Benchmark for Named Entity Recognition in Uzbek
Aizihaijierjiang Yusufu, Jiang Liu, Abidan Ainiwaer, Chong Teng, Yusup Azragul, Fei Li and Donghong Ji
- 16:15-16:30 Evaluation Framework for Poisoning Attacks on Knowledge Graph Embeddings
Dong Zhu, Yao Lin, Le Wang, Yushun Xie, Jie Jiang and Zhaoquan Gu
- 16:45-17:00 Auxiliary Information Enhanced Span-based Model for Nested Named Entity Recognition
Yiming Sun, Chenyang Li and Weihao Kong
- 17:00-17:15 Positive-guided Knowledge Distillation for Document-level Relation Extraction with Noisy Labeled Data
Daojian Zeng, Jianling Zhu, Lincheng Jiang and Jianhua Dai
-

Oral Paper Sessions

Oral Paper Session 7: NLP Applications and Text Mining (Meeting Room 5+6, 2nd Floor)

Session Chair: *Fenghuan Li*

- 15:15-15:30 增强提示学习的少样本文本分类方法
Ruifan Li, Zhiyu Wei, Yuantao Fan, Shuqin Ye and Guangwei Zhang
- 15:30-15:45 Biomedical Entity Normalization Using Encoder Regularization and Dynamic Ranking Mechanism
Siye Chen, Chunmei Xie, hang wang, Shihan Ma, Yarong Liu, Qiuhui Shi, Wenkang Huang and Hongbin Wang
- 15:45-16:00 Legal Judgment Prediction Incorporating Guiding Cases Matching
Hengzhi Li, Shubin Cai and Zhong Ming
- 16:00-16:15 SeSQL: A High-quality Large-scale Session-level Chinese Text-to-SQL Dataset
Saihao Huang, Lijie Wang, Zhenghua Li, Zeyang Liu, Chenhui Dou, FuKang Yan, Xinyan Xiao, Hua Wu and Min Zhang
- 16:15-16:30 RSpell: Retrieval-augmented Framework for Domain Adaptive Chinese Spelling Check
Siqi Song, Qi Lv, Lei Geng, Ziqiang Cao and Guohong Fu
- 16:30-16:45 Exploiting Multiple Features for Hash Codes Learning with Semantic-Alignment-Promoting Variational Auto-encoder
Jiayang Chen and Qinliang Su
- 16:45-17:00 A Cross-lingual Sentiment Embedding Model with Semantic and Sentiment Joint Learning
Yuemei Xu, Wanze Du and Ling Hu
- 17:00-17:15 Enhancing Detailed Feedback to Chinese Writing Learners Using a Soft-Label Driven Approach and Tag-Aware Ranking Model
Yuzhe Cai, Shaoguang Mao, Chenshuo Wang, Tao Ge, Wenshan Wu, Yan Xia, Chanjin Zheng and Qiang Guan
-

Oral Paper Sessions

Oral Paper Session 8: Large Language Models (Grand Ballroom (B), 2nd Floor)Session Chair: *Bo Wang*

- 15:15-15:30 Revisit Input Perturbation Problems for LLMs: A Unified Robustness Evaluation Framework for Noisy Slot Filling Task
Guanting Dong, Jinxu Zhao, Tingfeng Hui, Daichi Guo, Wenlong Wan, Boqi Feng, Yueyan Qiu, Zhuoma Gongque, Keqing He, Zechen Wang and Weiran Xu
- 15:30-15:45 Global Prompt Cell: A Portable Control Module for Effective Prompt Tuning
Chi Liu, Haochun Wang, Nuwa Xi, Sendong Zhao and Bing Qin
- 15:45-16:00 COSYWA: Enhancing Semantic Integrity in Watermarking Natural Language Generation
Junjie Fang, Zhixing Tan and Xiaodong Shi
- 16:00-16:15 Large Language Model Are Diverse Role-Players for Summarization Evaluation
Ning Wu, Ming Gong, Linjun Shou, Shining Liang and Daxin Jiang
- 16:15-16:30 Multi-Step Review Generation Based on Masked Language Model for Cross-Domain Aspect-Based Sentiment Analysis
Lei Ju, Xiuwei Lv, Zhiqiang Wang and Zhangwang Miao
- 16:15-16:30 Creative Destruction: Can Language Models Interpret Oxymorons?
Fan Xu, Ziyun Zhu and Xiaojun Wan
- 16:45-17:00 Punctuation Matters! Stealthy Backdoor Attack for Language Models
Xuan Sheng, Zhicheng Li, Zhaoyang Han, xiangmao chang and Piji Li
- 17:00-17:15 What Events Do Pre-trained Language Models Learn from Text? Probing Event-based Commonsense Knowledge by Confidence Sorting
Jiachun Li, Chenhao Wang, Yubo Chen, Kang Liu and Jun Zhao
-

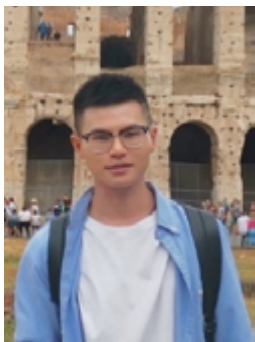
Student Workshop

15 Oct, Chair: *Jing Li, Jingjing Wang*

13:00-15:00, Grand Ballroom (B), 2nd Floor

Time	Talk	Speaker
13:00-13:20	How to Formulate Research Plans at Different Stages?	Bin Liang
13:20 -13:40	Should Research 'Go with the Flow' or 'Swim Against the Current'?	Xiaobo Liang
13:40-14:00	How to Start Your Research	Libo Qin
14:00-14:20	Choosing Research Directions in the Era of Large Language Models	Zhongyu Wei
14:20-14:30	Open Discussions	
14:30-15:00	Paper Presentation	

Student Workshop



Bin Liang is a Postdoctoral Fellow at The Chinese University of Hong Kong. He received a Ph.D. in Computer Science and Technology from Harbin Institute of Technology, Shenzhen. His research interests lie in natural language processing, affective computing, and multimodal learning. He has published more than 30 papers in conferences and journals such as ACL, EMNLP, WWW, SIGIR, TOIS, TAC, etc. His work has received the best paper award at CCL 2022.



Xiaobo liang is a Ph.D. at Soochow University, mentored by Associate Professor Juntao Li and Professor Min Zhang. He specializes in natural language generation, particularly emphasizing efficient training and inference techniques. His research has been featured in prestigious conferences such as NeurIPS, ACL, and EMNLP, etc.

Student Workshop



Libo Qin is currently a professor at School of Computer Science and Engineering, Central South University. He received the PhD degree from Harbin Institute of Technology. His research interests are dialogue system and natural language processing. He has published research papers at international NLP/AI conferences and journals, such as ACL, EMNLP, AAAI, and TASLP. His work has been selected as the Most Influential Paper by Paper Digest and won the Best Paper Award at the EMNLP2022 MMNLU Workshop.



Prof. **Wei Zhongyu** is an Associate Professor at the School of Big Data, Fudan University. He is also a dual-appointment researcher at the Laboratory of Intelligent Complex Systems, a PhD supervisor, and the director of the Data Intelligence and Social Computing Laboratory (Fudan DISC) at Fudan University. He is a member of the Fudan Natural Language Processing (Fudan NLP) team and holds a PhD from The Chinese University of Hong Kong. After that, he worked as a postdoctoral fellow at The University of Texas at Dallas, USA. He is the Deputy Secretary-General of the Affective Computing Special Committee of the Chinese Information Processing Society of China, Executive Committee Member and Secretary of the Social Media Processing Special Committee, and Deputy Director of the Youth Working Committee. He has served as a senior area chair and organizing committee member for several premier international conferences, including EMNLP and ACL. His research areas include natural language processing, social computing, and multimodal intelligent interaction technology. He has published over 80 papers in top-tier national and international conferences and journals in related fields. He has received awards such as the 2019 New Star in Social Media Processing Award from the Chinese Information Processing Society of China, the 2020 Huawei Technology Outstanding Achievement Award, the 2021 Shanghai Rising Star Program, the 2022 Outstanding Young Scholar Award in Natural Language Processing from the China Computer Federation, and the 2022 Shanghai Young Teachers' Teaching Competition Excellence Award.

Evaluation Workshop

15 Oct

13:00-17:15, Grand Ballroom (A), 2nd Floor

Evaluation Workshop 1 (13:00-15:00) Chair: *Yinghui Li*

Evaluation Session 1: Chinese Grammatical Error Correction

- 13:00-13:07 GrammarGPT: Taming Large Language Model to Be a Native Chinese Grammatical Error Corrector
Yaxin Fan, Feng Jiang, Peifeng Li and Haizhou Li
- 13:07-13:14 HWCSEC:HW-TSC's 2023 Submission for the NLPCC2023's Chinese Grammatical Error Correction Task
Su Chang, Xiaofeng Zhao, Xiaosong Qiao, Min Zhang, Hao Yang, Junhao Zhu, Ming Zhu and Wenbing Ma

Evaluation Session 2: Multi-perspective Scientific Machine Reading Comprehension

- 13:14-13:21 Overview of NLPCC Shared Task 2: Multi-perspective Scientific Machine Reading Comprehension
Xiao Zhang, Heqi Zheng, Yuxiang Nie and Xian-Ling Mao
- 13:21-13:28 Enhanced CGSN System for Machine Reading Comprehension
Liwen Zheng, Haoran Jia, Hongyan Xie, Xi Zhang and Yuming Shang
- 13:28-13:35 Scientific Reading Comprehension with Sentences Selection and Ranking
Jialei Chen, Weihua Wang and Shuai Shao

Evaluation Session 3: Math Word Problem Solving

- 13:35-13:42 A Numeracy-Enhanced Decoding for Solving Math Word Problem
Rao Peng, Chuanzhi Yang, Litian Huang, Xiaopan Lyu, Hao Meng and Xinguo Yu
- 13:42-13:49 Solving Math Word Problem with Problem Type Classification
Jie Yao, Zihao Zhou and Qiufeng Wang
- 13:49-13:56 Consistent Solutions for Optimizing Search Space of Beam Search
Yehui Xu, Sihui Li, Chujun Pu, Jin Wang and Xiaobing Zhou
- 13:56-14:04 *Break*

Evaluation Session 4: Conversational Aspect-based Sentiment Quadruple Analysis

- 14:04-14:11 Improving Conversational Aspect-based Sentiment Quadruple Analysis with Overall Modeling
Chenran Cai, Qin Zhao, Ruifeng Xu and Bing Qin
- 14:11-14:18 Conversational Aspect-based Sentiment Quadruple Analysis with Consecutive Multi-view Interaction
Yongquan Lai, Shixuan Fan, Zeliang Tong, Weiran Pan and Wei Wei
- 14:18-14:25 A Model Ensemble Approach for Conversational Quadruple Extraction
Zijian Tu, Bo Zhang, Chuchu Jiang, Jian Wang and Hongfei Lin
- 14:25-14:32 Enhancing Conversational Aspect-based Sentiment Quadruple Analysis with Context Fusion Encoding Method
Xisheng Xiao, Jiawei Chen, Qianer Li, Peijie Huang and Yuhong Xu

Evaluation Session 5: Chinese Medical Instructional Video Question Answering

- 14:32-14:39 Overview of the NLPCC 2023 Shared Task: Chinese Medical Instructional Video Question Answering
Bin Li, Yixuan Weng, Hu Guo, Bin Sun, Shutao Li, Yuhao Luo, Mengyao Qi, Xufei Liu, Yuwei Han, Haiwen Liang, Shuting Gao and Chen Chen
- 14:39-14:46 A Unified Framework for Optimizing Video Corpus Retrieval and Temporal Answer Grounding: Fine-grained Modality Alignment and Local-Global Optimization
Cheng Shuang, Zineng Zhou, Jun Liu, Jian Ye, Haiyong Luo and Yang Gu
- 14:46-14:53 A Two-Stage Chinese Medical Video Retrieval Framework with LLM
Ningjie Lei, Jinxiang Cai, Yixin Qian, Zhilong Zheng, Chao Han, Zhiyue Liu and Qingbao Huang
- 14:53-15:00 Improving Cross-Modal Visual Answer Localization in Chinese Medical Instructional Video Using Language Prompts
Zineng Zhou, Jun Liu, Cheng Shuang, Haiyong Luo, Yang Gu and Jian Ye
- 15:00-15:15 Break
-

Evaluation Workshop 2 (15:15-17:15) Chair: Wei Liu

Evaluation Session 6: Chinese Few-shot and Zero-shot Entity Linking

- 15:15-15:22 Overview of NLPCC 2023 Shared Task 6: Chinese Few-shot and Zero-shot Entity Linking
Zhenran Xu, Zifei Shan, Baotian Hu and Min Zhang
- 15:22-15:29 Improving Few-shot and Zero-shot Entity Linking with Coarse-to-Fine Lexicon-based Retriever
Shijue Huang, Bingbing Wang, Libo Qin, Qin Zhao and Ruifeng Xu

Evaluation Session 7: Chinese Essay Discourse Coherence Evaluation

- 15:29-15:36 Overview of the NLPCC 2023 Shared Task: Chinese Essay Discourse Coherence Evaluation
Hongyi Wu, Xinshu Shen, Man Lan, Xiaopeng Bai, Yuanbin Wu, Aimin Zhou, Shaoguang Mao, Tao Ge and Yan Xia
- 15:36-15:43 Two-Stage Topic Sentence Extraction for Chinese Student Essays
Yuwu Dong, Feiran Zheng, Hongyu Chen, Yizhou Ding, Yifan Zhou and Hao He
- 15:43-15:50 Multi-angle Prediction Based on Prompt Learning for Text Classification
Zhengyu Ju, Zhao Li, Shiwei Wu, Xiuhao Zhao and Yiming Zhan
- 15:50-15:57 Improving the Generalization Ability in Essay Coherence Evaluation through Monotonic Constraints
Chen Zheng, Huan Zhang, Yan Zhao and Yuxuan Lai
- 15:57-16:04 Task-related Pretraining with Whole Word Masking for Chinese Coherence Evaluation
Ziyang Wang, Sanwoo Lee, Yida Cai and Yunfang Wu

Evaluation Session 8: Chinese Spelling Check

- 16:04-16:11 Overview of the NLPCC 2023 Shared Task: Chinese Spelling Check
Xunjian Yin, Xiaojun Wan, Dan Zhang, Linlin Yu and Long Yu
- 16:11-16:18 Towards Robust Chinese Spelling Check Systems: Multi-round Error Correction with Ensemble Enhancement
Xiang Li, Hanyue Du, Yike Zhao and Yunshi Lan
- 16:18-16:26 Break
-

Evaluation Session 9: User Feedback Prediction and Response Generation

- 16:26-16:33 Overview of the NLPCC 2023 Shared Task 9: User Feedback Prediction and Response Generation
Hanlin Teng, Hongda Sun, Wei Liu, Shuang Dong, Rui Yan, Jian Luan and Bin Wang
- 16:33-16:40 User Preference Prediction for Online Dialogue Systems Based on Pre-trained Large Model
Chenyang Li, Long Zhang, Qiusheng Zheng, Zhongjie Zhao and Ziwei Chen
- 16:40-16:47 Auto-scaling Distribution Fitting Network for User Feedback Prediction
Yuanyuan Cui, Yanggang Lin, Bangyu Wu, Hao Chen, Bo Zeng and Xianchang Luo
- 16:47-16:54 Adversarial Training and Model Ensemble for User Feedback Prediction in Conversation System
Junlong Wang, Yongqi Leng, Xinyu Zhai, Linlin Zong, Hongfei Lin and Bo Xu
- 16:54-17:01 Generating Better Responses from User Feedback via Reinforcement Learning and Commonsense Inference
Mingxiu Cai, Daling Wang, Shi Feng and Yifei Zhang

Evaluation Session 10: Learn to Watch TV: Multimodal Dialogue Understanding and Response Prediction

- 17:01-17:08 Overview of the NLPCC 2023 Shared Task 10: Learn to Watch TV: Multimodal Dialogue Understanding and Response Generation
Yueqian Wang, Yuxuan Wang and Dongyan Zhao
- 17:08-17:15 Multimodal Dialogue Understanding via Holistic Modeling and Sequence Labeling
Chenran Cai, Qin Zhao, Ruifeng Xu and Bing Qin

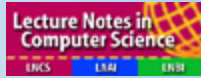
Organizer



Hosts



Publishers



Diamond Sponsors



Platinum Sponsors



Golden Sponsors

