# Yusen Zhang

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RESEARCH INTERESTS Scalable, efficient, trustworthy, Multi-Agent Large Language Model systems. Humancentric Large Language Model evaluation and applications.

Aug. 2021 - Present

Aug. 2023 - May 2024

**EDUCATION** 

Ph.D. Computer Science and Engineering Penn State University, State College, PA

Advisor: Dr. Rui Zhang

M.Sc. Computer Science (Data Science Track) Aug. 2019 - May. 2021

Emory University, Atlanta, GA

Advisor: Dr. Jinho D. Choi

B.Sc. Computer Science and Technology Sep. 2014 - Jun. 2018

Beijing Institute of Technology, Beijing, China Thesis: Intent Classification Based on Pattern Engine Advisor: Dr. Zijia Lin (MSRA), Dr. Xinxiao Wu (BIT)

RESEARCH **EXPERIENCE**  Student Researcher Google, Sunnyvale, CA

Project: Multi-agent Large Language Models

Advisor: Dr. Ruoxi Sun, Dr. Sercan Arik

Applied Scientist Intern Jun. 2022 - Aug. 2022

Amazon, New York, NY

Project: Long Dialogue Summarization Advisor: Dr. Xiaofei Ma, Dr. Wei Xiao

Research Intern Feb. 2022 - Jun. 2022

Microsoft, Redmond, WA

Project: Controllable Summarization

Advisor: Dr. Yang Liu

Research Assistant Jan. 2021 - Dec. 2021

Yale University, New Haven, CT Project: Long Text Summarization Advisor: Dr. Dragomir R. Radev

Research Intern Aug. 2017 - Jun. 2018

Microsoft Research Asia, Beijing, China

Project: Intent Classification and Name Entity Recognition

Advisor: Dr. Zijia Lin

# PUBLICATIONS \* indicates equal contribution & PREPRINTS

- [P3]. Yusen Zhang, Sarkar Das, Rui Zhang. "Verbosity ≠ Veracity: Verbosity Compensation Behavior of Large Language Models". Preprint 2024.
- [P2]. Renze Lou, Hanzi Xu, Sijia Wang, Jiangshu Du, Ryo Kamoi, Xiaoxin Lu, Jian Xie, Yuxuan Sun, Yusen Zhang, Jihyun Janice Ahn, Hongchao Fang, Zhuoyang Zou, Wenchao Ma, Xi Li, Kai Zhang, Congying Xia, Lifu Huang, Wenpeng Yin. "AAAR-1.0: Assessing AI's Potential to Assist Research". Preprint 2024.
- [P1]. Xi Li, Yusen Zhang, Renze Lou, Chen Wu, Jiaqi Wang. "Chain-of-Scrutiny: Detecting Backdoor Attacks for Large Language Models". Preprint 2024.
- [C14]. Yusen Zhang, Ruoxi Sun, Yanfei Chen, Tomas Pfister, Rui Zhang\*, Sercan Ö. Arık\*. "Chain of Agents: Large Language Models Collaborating on Long-Context Tasks". NeurIPS 2024.
- [C13]. Ryo Kamoi, Yusen Zhang, Nan Zhang, Jiawei Han, Rui Zhang. "When Can LLMs Actually Correct Their Own Mistakes? A Critical Survey of Self-Correction of LLMs". TACL 2024.
- [C12]. Ryo Kamoi, Sarkar Snigdha Sarathi Das, Renze Lou, Jihyun Janice Ahn, Yilun Zhao, Xiaoxin Lu, Nan Zhang, Yusen Zhang, Ranran Haoran Zhang, Sujeeth Reddy Vummanthala, Salika Dave, Shaobo Qin, Arman Cohan, Wenpeng Yin, Rui Zhang. "Evaluating LLMs at Detecting Errors in LLM Responses". COLM 2024.
- [C11]. Yusen Zhang, Nan Zhang, Yixin Liu, Alexander Fabbri, Junru Liu, Ryo Kamoi, Xiaoxin Lu, Caiming Xiong, Jieyu Zhao, Dragomir Radev, Kathleen McKeown, Rui Zhang. "Fair Abstractive Summarization of Diverse Perspectives". NAACL 2024.
- [C10]. Nan Zhang, Yusen Zhang, Wu Guo, Prasenjit Mitra, Rui Zhang. "FaMe-Summ: Investigating and Improving Faithfulness of Medical Summarization". EMNLP 2023.
- [C9]. Yusen Zhang, Jun Wang, Zhiguo Wang, Rui Zhang. "XSemPLR: Benchmarking Cross-Lingual Semantic Parsing in Multiple Natural Languages and Meaning Representations". ACL 2023.
- [C8]. Yusen Zhang, Yang Liu, Ziyi Yang, Yuwei Fang, Yulong Chen, Dragomir Radev, Chenguang Zhu, Michael Zeng, Rui Zhang. "MACSum: Controllable Summarization with Mixed Attributes". TACL 2023.
- [C7]. Yusen Zhang, Ansong Ni, Ziming Mao, Chen Henry Wu, Chenguang Zhu, Budhaditya Deb, Ahmed Hassan Awadallah, Dragomir R. Radev, Rui Zhang. "Summ<sup>N</sup>: A Multi-Stage Summarization Framework for Long Input Dialogues and Documents". ACL 2022.
- [C6]. Ziming Mao\*, Chen Henry Wu\*, Ansong Ni, Yusen Zhang, Rui Zhang, Tao Yu, Budhaditya Deb, Chenguang Zhu, Ahmed Hassan Awadallah, Dragomir R. Radev. "DYLE: Dynamic Latent Extraction for Abstractive Long-Input Summarization". ACL 2022.
- [C5]. Ansong Ni, Zhangir Azerbayev, Mutethia Mutuma, Troy Feng, Yusen Zhang, Tao Yu, Ahmed Hassan Awadallah, Dragomir Radev. "SummerTime: Text Summarization Toolkit for Non-experts". EMNLP 2021 Demo Track.
- [C4]. Yusen Zhang\*, Ansong Ni\*, Tao Yu, Rui Zhang, Chenguang Zhu, Budhaditya Deb, Asli Celikyilmaz, Ahmed Hassan Awadallah, Dragomir Radev. "An Exploratory Study on Long Dialogue Summarization: What Works and What's Next". EMNLP 2021 Findings.

- [C3]. Chang Shu\*, Yusen Zhang\*, Xiangyu Dong, Peng Shi, Tao Yu, Rui Zhang. "Logic-Consistency Text Generation from Semantic Parses". ACL 2021 Findings.
- [C2]. Yusen Zhang\*, Xiangyu Dong\*, Shuaichen Chang, Tao Yu, Peng Shi, Rui Zhang. "Did You Ask a Good Question? A Cross-Domain Question Intention Classification Benchmark for Text-to-SQL". Intex-Sempar @ EMNLP 2020.
- [C1]. Hui Chen, Zijia Lin, Guiguang Ding, Jianguang Lou, Yusen Zhang, Borje Karlsson. "GRN: Gated Relation Network to Enhance Convolutional Neural Network for Named Entity Recognition". AAAI 2019

### HONORS AND AWARDS

Dr. Tse-Yun Feng Graduate Student Award, CSE Dept., Penn State University 2022 The  $28^{th}$  place (19 teams to Final), ACM-ICPC North America Champions 2020 The  $3^{rd}$  place, ACM-ICPC Southeast American Regional Contest 2019 "Star of Tomorrow" Excellence Award, Microsoft Research Asia 2018 Science and Technology Award, Beijing Institute of Technology (19/3000) 2018

#### **SERVICES**

Review committee, EMNLP 2022,2023,2024, ACL 2023, CoNLL 2023,2024, Neurips 2024, Reviewer, ACL Rolling Review Nov. 2021 Program Committee of InTex-SemPar @ EMNLP 2020 Student Volunteer @ NAACL 2024

# TALKS AND PRESENTATIONS

"MACSum: Controllable Summarization with Mixed Attributes". Invited talk and poster, MASC-SLL. 2023 Apr. 2023.

Invited talk. "MACSum: Controllable Summarization with Mixed Attributes". West-lake University NLP Group. Feb. 2023.

## PROFESSIONAL Rui Zhang, Ph.D. REFERENCE Assistant Professor,

Computer Science and Engineering Department,

Penn State University.

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Email: r.zhang@psu.edu Relationship: Ph.D. Advisor