Zhendong Chu

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EDUCATION

University of Virginia Charlottesville, US
Ph.D. student in Computer Science *Aug 2019 - May 2024 (expected)*
Advisor: Prof. Hongning Wang

Fudan University Shanghai, China
Bachelor of Computer Science *Jul 2015 - Jun 2019*

RESEARCH INTERESTS

Data Mining, Natural Language Processing
- Focus: Conversational Recommendation Systems, Meta-Reinforcement Larning, Crowdsourcing
- Open to: Research Scientist, Machine Learning Engineer, Software Engineer

PUBLICATIONS & PREPRINTS

1. **Zhendong Chu**, Nan Wang and Hongning Wang. Multi-Objective Intrinsic Reward Learning for Conversational Recommender Systems. In *NeurIPS 2023*.

2. **Zhendong Chu**, Hongning Wang, Yun Xiao, Bo Long and Lingfei Wu. Meta Policy Learning for Cold-Start Conversational Recommendation. Long paper. In *WSDM 2023* (Oral presentation).

3. **Zhendong Chu** and Hongning Wang. Improve Learning from Crowds via Generative Augmentation. Long paper. In *KDD 2021*.

4. **Zhendong Chu**, Jing Ma and Hongning Wang. Learning from Crowds by Modeling Common Confusions. Long paper. In *AAAI 2021*.

5. **Zhendong Chu**, Renqin Cai and Hongning Wang. Accounting for Temporal Dynamics in Document Streams. Long paper. In *CIKM 2019*.

6. Jindong Chen, Ao Wang, Jiangjie Chen, Yanghua Xiao, **Zhendong Chu**, *et al*. CN-Probase: A Data-driven Approach for Large-scale Chinese Taxonomy Construction. Short paper. In *ICDE 2019*.

7. **Zhendong Chu**, Ruiyi Zhang, Tong Yu, Rajiv Jain, Vlad I Morariu, Jiuxiang Gu and Ani Nenkova. Improving a Named Entity Recognizer Trained on Noisy Data with a Few Clean Instances. In *submission*.

8. **Zhendong Chu** and Hongning Wang. Meta-Reinforcement Learning via Exploratory Task Clustering. In *submission*.

9. Ye Gao, **Zhendong Chu**, Hongning Wang and Jack Stankovic. MiddleGAN: Generate Domain Agnostic Samples for Unsupervised Domain Adaptation. *arXiv 2022*.

10. **Zhendong Chu***, Haiyun Jiang*, Yanghua Xiao and Wei Wang. InSRL: A Multi-view Learning Framework Fusing Multiple Information Sources for Distantly-supervised Relation Extraction. *arXiv 2020*.

RESEARCH EXPERIENCE

University of Virginia Charlottesville, US
Ph.D. student · Human-Centric Data Mining group *Aug 2019 - May 2024 (expected)*

- **Advisor:** Prof. Hongning Wang
- **Conversational Recommendation Systems:** Focusing on handling the cold-start issue in Conversational Recommendation Systems via meta-reinforcement learning techniques.
- **Neural Crowdsourcing:** Research on neural crowdsourcing algorithms to reduce complicated noise and improve sample efficiency for real-world crowdsourcing data.

Adobe Research San Jose, US
Research Intern · Document Intelligence Lab *May 2023 - Aug 2023*

- **Mentors:** Dr. Jack Wang, Dr. Ruiyi Zhang, Dr. Tong Sun
- **LLM for User Behavior Modeling:** Design and validate chain-of-thought based prompt strategies to more effectively model sequential user behavior data using LLM, which enhance personalization capabilities for subsequent applications.

Adobe Research Remote, US
Research Intern · Document Intelligence Lab May 2022 - Aug 2022

- **Mentors:** Dr. Ruiyi Zhang, Dr. Tong Sun
- **Noisy Named Entity Recognition:** Research on learning from noisy labeled named entity recognition data with the guidance of a few clean demonstrations. Resulted in a filed patent.

JD.com Remote, US
Research Intern · Recommendation and Search team May 2021 - Aug 2021

- **Mentor:** Dr. Lingfei Wu
- **Conversational Recommendation Systems:** Research on the cold-start problem in conversational recommendation systems to handle users with limited interaction history for E-commerce chatbots. Develop a meta-reinforcement learning method to fast adapt personalized policies on various users.

University of Virginia Charlottesville, US
Research Intern · Human-Centric Data Mining group Jun 2018 - May 2019

- **Advisor:** Prof. Hongning Wang
- **Dynamic Topic Modeling:** Research on Hawkes process based dynamic topic model to capture temporal dependence on both topic and document levels in document streams.

Fudan University Shanghai, China
Research Assistant · KnowledgeWorks group Jun 2017 - Jun 2019

- **Advisor:** Prof. Yanghua Xiao
- **Relation Extraction:** Research on multi-view distantly-supervised relation extraction for noise reduction and information complementary in imperfect RE datasets.
- **CN-Probase:** Participated in developing the largest existing Chinese Taxonomy (i.e., CN-Probase).

AWARDS & ACHIEVEMENTS

- NeurIPS 2023 Scholar Award   2023
- AAAI-21 top 25% PC members   2021
- SIGIR Student Travel Grant   2019
- UVA Computer Science Fellowship, University of Virginia   2019
- Outstanding Undergraduate Graduates, Shanghai Region   2019
- Tung OOCL Scholarship, Fudan University   2018
- Xiyuan Scholar, Undergraduate Research Opportunities Program, Fudan University   2018
- Second Prize of the Scholarship for Outstanding Students, Fudan University   2017

PROFESSIONAL SERVICE

Teaching Assistant

- Convex Optimization for Engineering & Data Science   Fall 2021
- Network Security   Spring 2021
- Statistical Learning and Graphical Models   Fall 2020

Reviewer / Sub-reviewer

- ACL 2023, EMNLP (2023, 2022), KDD (2023, 2022), WSDM (2024, 2023, 2022), SIGIR 2021, AAAI (2024, 2022, 2021), IJCAI 2023