

# Zhichao Xu

Updated April 24, 2024

Contact: zhichao.xu@utah.edu [Homepage](#) [Google Scholar](#) [Github](#)

RESEARCH INTERESTS Language Modeling, Explainable Information Retrieval, Dialogue System

INDUSTRY EXPERIENCES **Visa Research** Foster City, CA  
Staff Research Scientist Intern 05/2024 – 08/2024  
Mentored on Dr. Junpeng Wang, Dr. Michael Yeh  
Research Project on Large Language Models & Tool Usage

**Google Research** Mountain View, CA  
Student Researcher 05/2023 – 08/2023  
Hosted by Dr. Jiepu Jiang  
Research Project on Task-oriented Dialogue Systems & Evaluation

**Dataminr** NYC, NY  
Research Intern 09/2022 – 12/2022  
Mentored by Dr. Daniel Cohen, Dr. Hemank Lamba  
Research Project on Cross-lingual Retrieval

**Dataminr** NYC, NY  
Research Intern 05/2022 – 08/2022  
Mentored by Dr. Sebastian Bruch, Dr. Hemank Lamba  
Research Project on Counterfactual Explanations for Web Search

EDUCATION **University of Utah** Salt Lake City, UT  
PhD in Computer Science 09/2020 – Present  
Advisor: Prof. Vivek Srikumar, Prof. Bei Wang

**Rutgers University** New Brunswick, NJ  
MS in Computer Science 09/2018 – 05/2020  
Advisor: Prof. Yongfeng Zhang  
CS Department Outstanding Publication Award

**Shanghai University of Finance & Economics** Shanghai, CN  
BS in Applied Statistics 09/2014 – 06/2018

SELECTED PUBLICATIONS **Zhichao Xu**, Daniel Cohen, Bei Wang, and Vivek Srikumar. “In-Context Example Ordering Guided by Label Distributions”. In: *Findings of 2024 Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL Findings 2024)*

Zhenduo Wang, **Zhichao Xu**, Qingyao Ai, and Vivek Srikumar. “An in-depth investigation of user response simulation for conversational search”. In: *the 33rd ACM Web Conference (TheWebConf 2024)*

**Zhichao Xu** and Daniel Cohen. “A lightweight constrained generation alternative for query-focused summarization”. In: *Proceedings of the 46th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2023)*

Tao Yang, **Zhichao Xu**, Zhenduo Wang, and Qingyao Ai. “FARA: Future-aware Ranking Algorithm for Fairness Optimization”. In: *Proceedings of the 32nd ACM International Conference on Information and Knowledge Management (CIKM 2023)*

Tao Yang, **Zhichao Xu**, and Qingyao Ai. “Vertical Allocation-based Fair Exposure Amortizing in Ranking”. In: *Proceedings of the Annual International ACM SIGIR Conference on Research and Development in Information Retrieval in the Asia Pacific Region (SIGIR-AP 2023)*. [Best Paper Honorable Mention](#)

**Zhichao Xu**, Hansi Zeng, Juntao Tan, Zuohui Fu, Yongfeng Zhang, and Qingyao Ai. “A Reusable Model-agnostic Framework for Faithfully Explainable Recommendation and System Scrutability”. In: *ACM Transactions on Information Systems (TOIS)*

Yu Pan, **Zhichao Xu**, Levi Taiji Li, Yunhe Yang, and Mu Zhang. “Automated generation of security-centric descriptions for smart contract bytecode”. In: *Proceedings of the 32nd ACM SIGSOFT International Symposium on Software Testing and Analysis (ISSTA 2023)*. [Distinguished Paper Award](#)

Tao Yang, **Zhichao Xu**, Zhenduo Wang, Anh Tran, and Qingyao Ai. “Marginal-certainty-aware fair ranking algorithm”. In: *Proceedings of the Sixteenth ACM International Conference on Web Search and Data Mining (WSDM 2023)*

**Zhichao Xu**, Hansi Zeng, and Qingyao Ai. “Understanding the effectiveness of reviews in e-commerce top-n recommendation”. In: *Proceedings of the 2021 ACM SIGIR International Conference on Theory of Information Retrieval (ICTIR 2021)*

Hansi Zeng, **Zhichao Xu**, and Qingyao Ai. “A zero attentive relevance matching network for review modeling in recommendation system”. In: *Advances in Information Retrieval: 43rd European Conference on IR Research, ECIR 2021, Virtual Event, March 28–April 1, 2021, Proceedings, Part I 43 (ECIR 2021)*

**Zhichao Xu**, Yi Han, Yongfeng Zhang, and Qingyao Ai. “E-commerce recommendation with weighted expected utility”. In: *Proceedings of the 29th ACM international conference on information & knowledge management (CIKM 2020)*

Jalal Abdulbaqi, Yue Gu, **Zhichao Xu**, Chenyang Gao, Ivan Marsic, and Randall S Burd. “Speech-based activity recognition for trauma resuscitation”. In: *2020 IEEE International Conference on Healthcare Informatics (ICHI 2020)*

PREPRINTS

**Zhichao Xu**. “RankMamba, Benchmarking Mamba’s Document Ranking Performance in the Era of Transformers”. In: *arXiv preprint arXiv:2403.18276*. 2024

**Zhichao Xu** and Jiepu Jiang. “Multi-dimensional Evaluation of Empathetic Dialog Responses”. In: *arXiv preprint arXiv:2402.11409*. 2024

**Zhichao Xu**, Hemank Lamba, Qingyao Ai, Joel Tetreault, and Alex Jaimes. “Counterfactual editing for search result explanation”. In: *arXiv preprint arXiv:2301.10389*. 2023

**Zhichao Xu**. “Context-aware Decoding Reduces Hallucination in Query-focused Summarization”. In: *arXiv preprint arXiv:2312.14335*. 2023

Zhenduo Wang, **Zhichao Xu**, and Qingyao Ai. “Reward-free Policy Imitation Learning for Conversational Search”. In: *arXiv preprint arXiv:2304.07988*. 2023

**Zhichao Xu**, Anh Tran, Tao Yang, and Qingyao Ai. “Reinforcement Learning to Rank with Coarse-grained Labels”. In: *arXiv preprint arXiv:2208.07563*. 2022

**Zhichao Xu**, Yi Han, Tao Yang, Anh Tran, and Qingyao Ai. “Learning to Rank Rationales for Explainable Recommendation”. In: *arXiv preprint arXiv:2206.05368*. 2022

#### TEACHING

TA, CS 6350 Machine Learning, School of Computing, University of Utah  
Lecturer: Prof. Vivek Srikumar Spring 2024

Lead TA, CS 6140 Data Mining, School of Computing, University of Utah  
Lecturer: Prof. Ana Marasovic Spring 2023

TA, CS 2100 Discrete Structures, School of Computing, University of Utah  
Lecturer: Prof. Bei Wang Philips Fall 2022

TA, CS 6140 Data Mining, School of Computing, University of Utah  
Lecturer: Prof. Qingyao Ai Spring 2022

#### SERVICES

Conference Reviewer: ACL, ACL ARR, SIGIR, TheWebConf, KDD, RecSys, CCL  
Journal Reviewer: TOIS  
Workshop Reviewer: DLP-KDD, DLP-RecSys

#### COMMITTEE MEMBERS

Internal: Prof. Vivek Srikumar, Prof. Bei Wang, Prof. Ana Marasovic  
External: Prof. Qingyao Ai, Prof. Yongfeng Zhang

#### SKILLS

Programming: Python, PhP, Java, C++, Matlab  
Tools: PyTorch, Tensorflow, JAX, Spark, MapReduce, MongoDB, MySQL,  $\LaTeX$