Zhichao Xu

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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. Liang Wang
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 (**Findings of NAACL 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**)*

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