

Chacha Chen

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I am interested in human-centered machine learning, at the intersection of human-computer interaction and machine learning. I am passionate to work on topics but not limited to: machine learning explanations, human-AI decision making, and human-AI cooperation.

EDUCATION **University of Chicago** 2021 – present
Ph.D. in Computer Science
Advisor: [Chenhao Tan](#)


Pennsylvania State University 2019 – 2020
Master in Informatics
Advisors: [Ting-Hao \(Kenneth\) Huang](#), [Zhenhui \(Jessie\) Li](#)

Shanghai Jiao Tong University 2015 – 2019
Bachelor of Science in Computer Science

PROFESSIONAL EXPERIENCE **Microsoft Research**, Research Intern Jun. 2023 –
Mentors: [Siddharth Suri](#), [Longqi Yang](#).

Amazon AWS, Applied Scientist Intern Jun. 2022 – Aug. 2022
Mentors: [Rashmi Gangadharaiyah](#), Sandesh Swamy, and Narges Tabari.

IQVIA, Machine Learning Research Intern Jun. 2020 – Aug. 2020
Mentors: [Cao \(Danica\) Xiao](#), [Fenglong Ma](#) (PSU) and [Jimeng Sun](#) (UIUC).

PUBLICATIONS  [Google scholar](#)

Conference Papers

- P.1 **Chacha Chen***, Shi Feng*, Amit Sharma, Chenhao Tan.
Machine Explanations and Human Understanding. (**FAccT & TMLR 2023**).
- P.2 Vivian Lai, **Chacha Chen**, Alison Smith-Renner, Vera Liao, and Chenhao Tan.
Towards a Science of Human-AI Decision Making: A Survey of Empirical Studies.
(**FAccT 2023**).
- P.3 Vivian Lai*, Yiming Zhang*, **Chacha Chen**, Vera Liao, and Chenhao Tan. Selective Explanations: Leveraging Human Input to Align Explainable AI. In Proceedings of the 26th ACM Conference on Computer-Supported Cooperative Work and Social Computing (**CSCW 2023**).
- P.4 Han Liu, Yizhou Tian, **Chacha Chen**, Shi Feng, Yuxin Chen, Chenhao Tan. Learning Human-Compatible Representations for Case-Based Decision Support. In Proceedings of the 11th International Conference on Learning Representations (**ICLR 2023**).
- P.5 Sandesh Swamy, Narges Tabari, **Chacha Chen**, Rashmi Gangadharaiyah. Contextual Dynamic Prompting for Response Generation in Task-oriented Dialog Systems. In Proceedings of the 17th Conference of the European Chapter of the Association for Computational Linguistics (**EACL 2023**).

- P.6 Chi-Yang Hsu, Yun-Wei Chu, Vincent Chen, Kuan-Chieh Lo, **Chacha Chen**, Ting-Hao Huang, Lun-Wei Ku. Learning to Rank Visual Stories From Human Ranking Data. In Proceedings of the 60th Annual Meeting of the Association for Computational Linguistics (**ACL 2022**).
- P.7 Guanjie Zheng, Chang Liu, Hua Wei, Porter Jenkins, **Chacha Chen**, Tao Wen, Zhenhui Li. Knowledge-based Residual Learning. In Proceedings of the The 30th International Joint Conference on Artificial Intelligence (**IJCAI 2021**).
- P.8 **Chacha Chen**, Junjie Liang, Fenglong Ma, Lucas Glass, Jimeng Sun, Cao Xiao, UNITE: Uncertainty-based Health Risk Prediction Leveraging Multi-sourced Data, In Proceedings of The Web Conference 2021 (**WWW 2021**).
- P.9 Guanjie Zheng, Chang Liu, Hua Wei, **Chacha Chen**, Zhenhui Li, Rebuilding City-Wide Traffic from Multi-Source Data. In Proceedings of 37th IEEE International Conference on Data Engineering (**ICDE 2021**).
- P.10 Hua Wei, **Chacha Chen**, Chang Liu, Guanjie Zheng and Zhenhui Li, ImIn-GAIL: Learning to Simulate with Imitation-Interpolation on Sparse Trajectory Data. In Proceedings of European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (**ECML-PKDD 2020**).
 *Best Applied Data Science Paper Award*
- P.11 **Chacha Chen**, Hua Wei, Nan Xu, Guanjie Zheng, Ming Yang, Yuanhao Xiong, Kai Xu and Zhenhui Li, Toward A Thousand Lights: Decentralized Deep Reinforcement Learning for Large-Scale Traffic Signal Control. In Proceedings of the Thirty-Fourth AAAI Conference on Artificial Intelligence (**AAAI 2020**).
- P.12 Hua Wei, Nan Xu, Huichu Zhang, Guanjie Zheng, Xinshi Zang, **Chacha Chen**, Weinan Zhang, Yanmin Zhu, Kai Xu and Zhenhui Li, CoLight: Learning Network-level Cooperation for Traffic Signal Control. In Proceedings of the 2019 ACM on Conference on Information and Knowledge Management (**CIKM 2019**).
- P.13 Hua Wei, **Chacha Chen**, Guanjie Zheng, Kan Wu, Vikash V. Gayah, Kai Xu and Zhenhui Li, PressLight: Learning Max Pressure Control to Coordinate Traffic Signals in Arterial Network. In Proceedings of the 25th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD 2019**).

Workshop Papers

- W.1 **Chacha Chen***, Shi Feng*, Amit Sharma, Chenhao Tan, Machine Explanations and Human Understanding, ICML 2022 Workshop on Human-Machine Collaboration and Teaming (**HMCaT, ICML 2022**).
 *Best Paper Award*
- W.2 Tongan Cai*, **Chacha Chen***, Ting-Hao K. Huang, Frank E. Ritter, What Makes A Good Reference Manager? A Quantitative Analysis of Bibliography Management Applications, Asian CHI Symposium 2021 (**AsianCHI2021**).
 *Best Paper Award*
- W.3 **Chacha Chen**, Guanjie Zheng, Hua Wei, Zhenhui Li, Physics-informed Generative Adversarial Networks. In Proceedings of the NeurIPS Workshop on Interpretable Inductive Biases and Physically Structured Learning (**IIBPSL, NeurIPS 2020**).

AWARDS

Crerar Fellowship, <i>The University of Chicago</i>	Feb. 2021
AAAI-20 VISA Research Scholarship	Feb. 2020
AAAI-20 Student Travel Grant	Feb. 2020
Top 25 in the finalist, <i>KDD Cup 2020 LDR Competition</i>	Aug. 2020
Distinguished Bachelor Thesis, <i>Shanghai Jiao Tong University</i>	Jun. 2019
Academic Excellence Scholarship, <i>Shanghai Jiao Tong University</i>	Sep. 2016

COMMUNITY **Conference Program Committee Member/Reviewer**
 ACTIVITIES & AAAI 2021, AAAI 2023, CHI 2023, ACL-IJCNLP 2021, EACL 2023, IC2S2 2022
 SERVICE

Organizer of UChicago Computer Science Student Seminar 2021-2022.

Student Representative of Computer Science department at Dean's Student Advisory Committee 2020-2021.

TALKS *Machine Explanations and Human Understanding*
 Human-Centric AI group at NEC Labs Europe in Heidelberg, Germany, 2022.

Interpretable Machine Learning
 Data Mining and Machine Learning seminar at the Pennsylvania State University, 2020

TEACHING Pennsylvania State University
 EXPERIENCE **Teaching Assistant** Fall 2020
 IST 261 (Java Course): Application Development Design Studio I
 Prof. Kenneth Huang