Xiaoyuan Liu (刘啸远)

Ph.D. Student in Computer Science

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EDUCATION

Shanghai Jiao Tong University   **Shanghai, China**
Honors Bachelor of Engineering (B.Eng. Hons) in Computer Science   Sept. 2016 ~ June 2020
University of California, Berkeley   **Berkeley, USA**
EECS Ph.D. student advised by Professor Dawn Song   2020 ~ (Expected) 2026
- Member of Berkeley Center for Responsible, Decentralized Intelligence (RDI),
- Initiative for Cryptocurrencies & Contracts Lab (IC3), and
- Berkeley Artificial Intelligence Research (BAIR) Lab.

SELECTED PROJECTS

MPC4F (with Meta AI, Oasis Labs)   ■   Rust   2021
Multi-Party Computation for AI Fairness Evaluation
- Architect a privacy-preserving fairness evaluation system that involves multi-party computation, differential privacy, homomorphic encryption, and zero-knowledge proof.
- Lead a team to fulfill its development, industry-level code auditing, deployment, and delivery to Meta.

PUBLICATIONS

ThreatKG: An AI-Powered System for Automated Open-Source CTI Gathering and Management Peng Gao*, **Xiaoyuan Liu*** (equal contribution), Edward Choi, Sibo Ma, Xinyu Yang, Dawn Song	LAMPS'24
Ratel: MPC-extensions for Smart Contracts [pdf] Yunqi Li, Kyle Soska, Zhen Huang, Sylvain Bellemare, Mikerah Quintyne-Collins, Lun Wang, **Xiaoyuan Liu**, Dawn Song, Andrew Miller	AsiaCCS'24
Evaluating Large Language Models in an Emerging Domain: A Pilot Study in Decentralized Finance [pdf] Joshua Carter Pearlson, **Xiaoyuan Liu**, Chengsong Huang, Kripa Ann George, Dawn Song, Chenguang Wang	ICLR Workshop'24
Effective and Efficient Federated Tree Learning on Hybrid Data [pdf] Qinbin Li, Chulin Xie, Xiaojun Xu, **Xiaoyuan Liu**, Ce Zhang, Bo Li, Bingsheng He, Dawn Song	ICLR'24
Lessons Learned: Surveying the Practicality of Differential Privacy in the Industry [pdf] Gonzalo Munilla Garrido, **Xiaoyuan Liu**, Florian Matthes, Dawn Song	PETS'23
A System for Automated Open-Source Threat Intelligence Gathering and Management [pdf] Peng Gao*, **Xiaoyuan Liu*** (equal contribution), Edward Choi, Bhavna Soman, Chinmaya Mishra, Kate Farris, Dawn Song	SIGMOD'21 Demo
Enabling Efficient Cyber Threat Hunting With Cyber Threat Intelligence [pdf] Peng Gao, Fei Shao, **Xiaoyuan Liu**, Xusheng Xiao, Zheng Qin, Fengyuan Xu, Prateek Mittal, Sanjeev R Kulkarni, Dawn Song	ICDE'21
A System for Efficiently Hunting for Cyber Threats in Computer Systems Using Threat Intelligence [pdf] Peng Gao, Fei Shao, **Xiaoyuan Liu**, Xusheng Xiao, Haoyuan Liu, Zheng Qin, Fengyuan Xu, Prateek Mittal, Sanjeev R Kulkarni, Dawn Song	ICDE'21 Demo
BeeTrace: A Unified Platform for Secure Contact Tracing that Breaks Data Silos [pdf] **Xiaoyuan Liu**, Ni Trieu, Evgenios M Kornaropoulos, Dawn Song	IEEE Data Engineering Bulletin'20
Pretrained Transformers Improve Out-of-Distribution Robustness [pdf] Dan Hendrycks*, **Xiaoyuan Liu*** (equal contribution), Eric Wallace, Adam Dziedzic, Rishabh Krishnan, Dawn Song	ACL'20
Distributed Structured Actor-Critic Reinforcement Learning for Universal Dialogue Management [pdf] Zhi Chen, Lu Chen, **Xiaoyuan Liu**, Kai Yu	IEEE-ACM T AUDIO SPE

TEACHING EXPERIENCE

Lead Teaching Assistant *Entrepreneurship in Web3*	Fall 2022
Teaching Assistant *Decentralized Finance*	Fall 2021
Student Instructor *Principle and Practice of Computer Algorithms*	Summer 2018
Lead Teaching Assistant *Data Structures*	Spring 2018
Lead Teaching Assistant *C++ Programming (A)*	Fall 2017

HONORS AND AWARDS

JP Morgan Chase PhD Fellowship	2023
Berkeley EECS Department Fellowship	2020
Outstanding Student Cadre (**Top 0.8%**, SJTU)	2018
KoGuan Encouragement Scholarship (**Top 0.3%**, SJTU)	2017
Academic Excellence Scholarship	2017, 2018, 2019
Zhiyuan Honorary Scholarship	2016, 2017, 2018
The 32nd China's National Olympiad in Informatics (NOI) Silver Medal	2015