

Fei Wang

Toronto, Canada
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EDUCATION

University of Toronto, Toronto, ON, Canada

Department of Electrical & Computer Engineering

Ph.D. Student, Computer Engineering (transferred from M.A.Sc in Jan 2022)

Sep 2020 – present

- Cumulative GPA: 3.86/4.00

Wuhan University, Wuhan, Hubei, People's Republic of China

Hongyi Honor College

B.Engr., Computer Science and Technology (with honors)

2016 – 2020

- Cumulative GPA: 3.80/4.00
- Rank: 4/34 (selected from 587 students in the School of Computer Science, Wuhan University)

PUBLICATIONS

JOURNALS & MAGAZINES

Fei Wang, Ethan Hugh, Baochun Li, “More than Enough is Too Much: Adaptive Defenses against Gradient Leakage in Production Federated Learning,” in *IEEE/ACM Transactions on Networking*, 2024 (JIF: 3.7).

Fei Wang, Baochun Li, “Harnessing the Power of Local Supervision in Federated Learning,” in *IEEE Transactions on Big Data, Special Issue on Federated Learning for Big Data Applications*, 2024 (JIF: 7.2).

Fei Wang, Baochun Li, Bo Li, “Federated Unlearning and Its Privacy Threats,” in *IEEE Network*, 2023 (JIF: 10.294).

Fei Wang, Baochun Li, Bo Li, “Quality-Oriented Federated Learning on the Fly,” in *IEEE Network, Special Issue on Federated Optimizations and Networked Edge Intelligence*, vol. 36, no. 5, pp. 152–159, September–October 2022 (JIF: 10.294).

Salma Emara, **Fei Wang**, Baochun Li, Timothy Zeyl, “Pareto: Fair Congestion Control with Online Reinforcement Learning,” in *IEEE Transactions on Network Science and Engineering*, vol. 9, no. 5, pp. 3731–3748, September–October 2022 (JIF: 5.033).

CONFERENCES

Salma Emara, Daniel Liu, **Fei Wang**, Baochun Li, “Cascade: Enhancing Reinforcement Learning with Curriculum Federated Learning and Interference Avoidance — A Case Study in Adaptive Bitrate Selection,” in the *Proceedings of IEEE INFOCOM 2024 Workshop on Distributed Machine Learning and Fog Networks (FOGML)*, Vancouver, Canada, May 20–23, 2024.

Baochun Li, Ningxin Su, Chen Ying, **Fei Wang**, “Plato: An Open-Source Research Framework for Production Federated Learning,” in the *Proceedings of ACM Turing Award Celebration Conference (TURC)*, Wuhan, China, July 28–30, 2023.

Fei Wang, Salma Emara, Isidor Kaplan, Baochun Li, Timothy Zeyl, “Multi-Agent Deep Reinforcement Learning for Cooperative Edge Caching via Hybrid Communication,” in the *Proceedings of IEEE ICC 2023, Selected Areas in Communications — Machine Learning for Communications and Networking Track*, Rome, Italy, May 28 – June 1, 2023.

Fei Wang, Ethan Hugh, Baochun Li, “More than Enough is Too Much: Adaptive Defenses against Gradient Leakage in Production Federated Learning,” in the *Proceedings of IEEE INFOCOM 2023, New York Area, U.S.A.*, May 17–20, 2023 (acceptance rate: 19.2%, Best Paper Award).

Salma Emara, **Fei Wang**, Isidor Kaplan, Baochun Li, “Ivory: Learning Network Adaptive Streaming Codes,” in the *Proceedings of the 30th IEEE/ACM International Symposium on Quality of Service (IWQoS)*, Online, June 10–12, 2022 (acceptance rate: 24.3%).

PATENTS

Zhenhua Hu, Timothy J. Zeyl, Salma Emara, Baochun Li, **Fei Wang**, “Method and Apparatus for Multiple Reinforcement Learning Agents in a Shared Environment,” July 6, 2023.

TEACHING EXPERIENCE

Tutorial Teaching Assistant for APS105 – Computer Fundamentals (in C)

Winter 2024

Department of Electrical & Computer Engineering, University of Toronto

- Leading tutorial sessions on assigned problem sets

- Assisting students with troubleshooting on Piazza
- Invigilating and marking the midterm exam

Teaching Assistant for ECE1771 – Quality of Service

Fall 2023

Department of Electrical & Computer Engineering, University of Toronto

- Grading critiques, midterm paper draft, and final course paper
- Invigilating and marking the final exam

Lab Teaching Assistant for APS105 – Computer Fundamentals (in C)

Winter 2022 & Winter 2023

Department of Electrical & Computer Engineering, University of Toronto

- Providing support to students with their lab assignments
- Grading lab assignments particularly on coding style
- Invigilating and marking the final exam

Developer Assistant for ECEH1S – ECE Project

Winter 2022

Department of Electrical & Computer Engineering, University of Toronto

- Developing a research database web application using Node.js with PostgreSQL

SKILLS

Programming/Scripting Language: Python, C, JavaScript, UNIX Shell Scripting, L^AT_EX, MATLAB
 Platforms/Frameworks/Tools: PyTorch, NumPy, Matplotlib, Git, Linux (Ubuntu)

AWARDS & HONORS

- IEEE INFOCOM 2023 Student Travel Grant 2023
- Farid and Diana Najm Graduate Fellowship (received with professor’s nomination),
 University of Toronto 2023
- IEEE ICNP 2022 Travel Grant 2022
- The Edward S. Rogers Sr. Graduate Scholarship, University of Toronto 2020 – 2023
- Excellent Student Cadre, Wuhan University 2018 & 2019
- Special Overseas Scholarship, Wuhan University 2018 & 2019
- Outstanding Student Scholarship, Wuhan University 2016 – 2019