Jiaxing Li

Ph.D. Candidate in Computing Science · Simon Fraser University · Burnaby, BC, Canada

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RESEARCH INTERESTS

LLM Applications, Cloud/Edge Computing, Distributed Systems

EDUCATION

Simon Fraser University, Burnaby, BC, Canada — 2023.09 – Present
Ph.D. in Computing Science · GPA 4.29/4.33
Advisor: Prof. Jiangchuan Liu

Simon Fraser University, Burnaby, BC, Canada — 2020.01 – 2023.08
B.Sc. in Computing Science · GPA 3.71/4.33

Fraser International College, Burnaby, BC, Canada — 2018.09 – 2019.12
Transfer Program in Computing Science

PUBLICATIONS

Journal and Conference Papers

[1] **Jiaxing Li**, Hengzhi Wang, Feng Wang, Chi Xu, Danyang Song, Ruixiao Zhang, Edith C. H. Ngai, and Jiangchuan Liu. "From Cloud to Crowd: Democratizing LLM Service With Decentralized Edge Collaboration for RAG." *IEEE Transactions on Mobile Computing (TMC)*, 2026.

[2] **Jiaxing Li**, Hao Fang, Chi Xu, Miao Zhang, Jiangchuan Liu, William I. Atlas, Katrina M. Connors, and Mark A. Spoljaric. "Sustainable Intelligence for the Wild: Democratizing Ecological Monitoring via Knowledge-Adaptive Edge Expert Agents." *International Joint Conference on Artificial Intelligence (IJCAI)*, AI and Social Good Track, 2026.

[3] Chi Xu, **Jiaxing Li**, Mengdi Jin, William I. Atlas, Mark A. Spoljaric, Edith C. H. Ngai, and Jiangchuan Liu. "FUSED: Toward Federated Multimodal Retrieval across Sovereign Data Domains." *The Web Conference (WWW)*, Web4Good Track, 2026.

[4] Miao Zhang, **Jiaxing Li**, Haoyuan Zhao, Linfeng Shen, and Jiangchuan Liu. "StarStream: Live Video Analytics over Space Networking." *ACM Multimedia*, 2024.

[5] **Jiaxing Li**, Chi Xu, Feng Wang, Isaac M. von Riedemann, Cong Zhang, and Jiangchuan Liu. "SCALM: Towards Semantic Caching for Automated Chat Services with Large Language Models." *IEEE/ACM International Symposium on Quality of Service (IWQoS)*, 2024.

[6] Miao Zhang, **Jiaxing Li**, Jianxin Shi, Yifei Zhu, Lei Zhang, and Hengzhi Wang. "ITSVA: Toward 6G-Enabled Vision Analytics over Integrated Terrestrial-Satellite Network." *IEEE International Conference on Satellite Computing*, 2023. **Best Paper Award**

[7] **Jiaxing Li**, Marissa L. O'Neill, Connor Pattison, James H-W. Zhou, Joshua M. Ito, Calvin S. T. Wong, Hua-Zhong Yu, and Nabyl Merbouh. "Mobile App to Quantify pH Strips and Monitor Titrations: Smartphone-Aided Chemical Education and Classroom Demonstrations." *Journal of Chemical Education*, 2023.

Preprints

[8] **Jiaxing Li**, Chi Xu, Lianchen Jia, Feng Wang, Cong Zhang, and Jiangchuan Liu. "EACO-RAG: Towards Distributed Tiered LLM Deployment using Edge-Assisted and Collaborative RAG with Adaptive Knowledge Update." *arXiv preprint arXiv:2410.20299*, 2024.

Posters

[9] Cheng Pan, Feng Wang, Cong Zhang, **Jiaxing Li**, Edith C. H. Ngai, and Jiangchuan Liu. "Every Little Bit Helps: A Semantic-aware Tail Label Understanding Framework." *IEEE/ACM International Symposium on Quality of Service (IWQoS)*, 2024.

EXPERIENCE

Fortinet, Burnaby, BC, Canada — 2025.12 – Present
AI Researcher — Internship

- Designed and built, end to end, an AI agent that lets security engineers run FortiDeceptor, Fortinet's cyber-deception product that traps attackers with decoy systems, through plain-language conversation: it investigates attacks, plans defenses, and deploys them on live devices.
- Made its attack analysis trustworthy at scale: the agent examines tens of thousands of attack records, far more than a language model can read at once, and reports exact, verifiable numbers instead of hallucinated ones.
- Turned a single request into an autonomous defense: the agent maps the live network, designs tailored decoys, including ones that mimic the targets of a spreading attack, reviews and revises its own plan, and deploys only after a human signs off.

Jiangxing Intelligence, Shenzhen, China — 2024.05 – 2024.08
Large Language Model Algorithm Engineer — Internship

- Designed key components of AutoEdge, a system that automates the deployment and iterative fine-tuning of large language models on integrated edge–cloud platforms.
- Built an online learning method based on Bayesian optimization that picks the most cost-effective cloud GPU instances (spot or on-demand) for model training, balancing compute cost, engineering schedules, and model quality for significant operational savings.

4D LABS, Burnaby, BC, Canada — 2022.05 – 2023.05
Undergraduate Research Assistant

- Developed the Smart pH Reader Android app, funded by an SFU Undergraduate Student Research Award (VPRI USRA), which turns smartphone camera images into quantitative pH measurements through color analysis, with accuracy comparable to laboratory equipment.
- Validated the app in classroom experiments with more than 150 high school and undergraduate students; published as a first-author paper in the Journal of Chemical Education.

TEACHING

Teaching Assistant, Simon Fraser University

CMPT 454: Database Systems II — Fall 2025
CMPT 365: Multimedia Systems — Fall 2024
CMPT 371: Data Communications and Networking — Fall 2023

Guest Lecturer (Co-Instructor), National Taiwan University of Science and Technology

Computer Networks (online course) — Fall 2023

HONORS AND AWARDS

Best Paper Award, IEEE International Conference on Satellite Computing (for ITSVA) — 2023
Graduate Fellowship, Simon Fraser University — 2023, 2024, 2025
Ph.D. Research Scholarship, Simon Fraser University — 2023, 2024, 2025
Undergraduate Open Scholarship, Simon Fraser University (Top 5% of students in the Faculty of Applied Sciences) — 2022, 2023
Vice President Research and Innovation Undergraduate Student Research Award (VPRI USRA), Simon Fraser University — 2022
President's Honour Roll, Simon Fraser University — 2022
Dean's Honour Roll, Simon Fraser University — 2021, 2022

ACADEMIC SERVICE

Program Committees: ACM SIGIR 2026; The Web Conference (WWW) 2026, Web4Good Track

Conference & Workshop Reviewing: IEEE INFOCOM 2025, 2026, 2027; ACM Multimedia (MM) 2025; The Web Conference (WWW) 2025, 2027; IEEE MASS 2026; IEEE INFOCOM 2026 Workshop on Embodied Intelligence Networks (EIN)

Journal Reviewing: IEEE Transactions on Mobile Computing (TMC); IEEE Transactions on Computers (TC); IEEE Journal of Selected Topics in Signal Processing (JSTSP); IEEE Network

SKILLS

Expertise: Large language models, cloud/edge computing, distributed machine learning systems

Programming and tools: Python, Java, C++, SQL, Android development, Git, Docker, LaTeX