

# Yejia Liu

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<b>Education</b>	<b>University of California Riverside</b> , Riverside, US <i>Doctor of Philosophy</i> , Computer Science Advisor: Shaolei Ren	2021 - 2025
	<b>Simon Fraser University</b> , Burnaby, Canada <i>Master of Science</i> , Computing Science Advisors: Oliver Schulte, Jiannan Wang	2016 - 2018
	<b>South China University of Technology</b> , Guangzhou, China <i>Bachelor of Engineering</i> , Software Engineering	2012 - 2016
<b>Research Interest</b>	I work on building <i>efficient, equitable and responsible</i> systems across <b>database</b> and <b>machine learning</b> .	
<b>Employment</b>	<b>Data Scientist</b> , Microsoft Redmond, WA, US	Aug 2025 - Present
	<b>Data Scientist Intern</b> , Microsoft Redmond, WA, US	Jun 2023 - Sep 2024
	<b>Software Engineer</b> , Tencent Shenzhen, Guangdong, China	Aug 2019 - Apr 2020
	<b>Software Engineer</b> , Amazon Vancouver, BC, Canada	Sep 2018 - Jun 2019
	<b>Software Engineer Intern</b> , Amazon Vancouver, BC, Canada	May 2017 - Aug 2017
<b>Publications</b>	Wang Bill Zhu*, Miaosen Chai*, Shangshang Wang, <b>Yejia Liu</b> , Song Bian, Honghua Dong, Willie Neiswanger, Robin Jia. <b>Precise Debugging Benchmark: Is Your Model Debugging or Regenerating?</b> <i>Annual Conference of the Association for Computational Linguistics (ACL)</i> , 2026.	
	<b>Yejia Liu</b> , Zhifeng Wu, Pengfei Li, Shaolei Ren. <b>Predicting Public Health Impacts of Electricity Usage</b> . <i>Socially Responsible and Trustworthy Foundation Models Workshop at NeurIPS (ResponsibleFM, NeurIPS)</i> , 2025.	
	Shijin Duan, <b>Yejia Liu</b> , Gaowen Liu, Ramana Rao Kompella, Shaolei Ren, Xiaolin Xu. <b>Towards Vector Optimization on Low-Dimensional Vector Symbolic Architecture</b> . <i>Conference on Parsimony and Learning (CPAL)</i> , 2025.	
	<b>Yejia Liu</b> , Pengfei Li, Daniel Wong, Shaolei Ren. <b>Geographical Server Relocation: Opportunities and Challenges</b> . <i>Workshop on Sustainable Computer Systems (HotCarbon)</i> , 2024.	

**Yejia Liu**, Jianyi Yang, Pengfei Li, Tongxin Li, Shaolei Ren. **Building Socially-Equitable Public Models**. *International Conference on Machine Learning (ICML)*, 2024.

Pengfei Li\*, **Yejia Liu\***, Jianyi Yang, Shaolei Ren. **Towards Socially and Environmentally Responsible AI**. *Ethical Systems and Architecture Design Workshop at ASPLOS (HotEthics, ASPLOS)*, 2024.

**Yejia Liu**, Shijin Duan, Xiaolin Xu, Shaolei Ren. **Scheduled Knowledge Acquisition on Lightweight Vector Symbolic Architectures for Brain-Computer Interfaces**. *EDGE AI Research Symposium (TinyML)*, 2024.

Weiyuan Wu, Pei Wang, Yi Xie, **Yejia Liu**, George Chow, Jiannan Wang. **Web Connector: A Unified API Wrapper to Simplify Web Data Collection**. *Very Large Data Bases (VLDB)*, 2023.

**Yejia Liu**, Shijin Duan, Xiaolin Xu, Shaolei Ren. **MetaLDC: Meta Learning of Low-Dimensional Computing Classifiers for Fast On-Device Adaption**. *EDGE AI Research Symposium (TinyML)*, 2023.

**Yejia Liu\***, Wang Zhu\*, Shaolei Ren. **Navigating Memory Construction by Global Pseudo-Task Simulation for Continual Learning**. *Conference on Neural Information Processing Systems (NeurIPS)*, 2022.

Shijin Duan, **Yejia Liu**, Shaolei Ren, Xiaolin Xu. **LeHDC: Learning-Based Hyperdimensional Computing Classifier**. *Design Automation Conference (DAC)*, 2022.

Lampros Flokas, Weiyuan Wu, **Yejia Liu**, Jiannan Wang, Nakul Verma, Eugene Wu. **Complaint-Driven Training Data Debugging at Interactive Speeds**. *ACM SIGMOD International Conference on Management of Data (SIGMOD)*, 2022.

**Yejia Liu**, Weiyuan Wu, Lampros Flokas, Jiannan Wang, Eugene Wu. **Enabling SQL-based Training Data Debugging for Federated Learning**. *Very Large Data Bases (VLDB)*, 2022.

**Yejia Liu**, Oliver Schulte, Chao Li. **Model Trees for Identifying Exceptional Players in the NHL and NBA Drafts**. *Machine Learning and Data Mining for Sports Analytics Workshop at ECML-PKDD (MLSA, ECML-PKDD)*, 2018.

## Teaching

**Teaching Assistant**, CS 008 (Introduction to Computing) Winter 2025  
TA of 250-student class, graded quizzes and assignments. Hold office hours weekly.

**Head Teaching Assistant**, CS 100 (Software Construction) Fall 2024  
Head TA of 130-student class, managed a team of 6 TAs and graders, led weekly discussion sections, proofread all assignments and designed questions for the midterm and final.

**Head Teaching Assistant**, CS 100 (Software Construction) Spring 2023  
Head TA of 130-student class, managed a team of 6 TAs and graders, led weekly discussion sections, proofread all assignments and designed questions for the midterm and final.

**Teaching Assistant**, CS 008 (Introduction to Computing) Spring 2022  
TA of 250-student class, graded quizzes and assignments. Hold office hours weekly.

**Teaching Assistant**, CS 153 (Design of Operating Systems) Winter 2021  
TA of 50-student class, graded quizzes and assignments. Hold office hours weekly.

**Teaching Assistant**, CS 009P (Introduction to Programming) Fall 2021  
TA of 100-student class, led labs, graded quizzes and assignments. Hold office hours weekly.

**Mentorship** Zhifeng Wu (UCR PhD) Sep 2024 - Jun 2026

**Professional Services** International Conference on Artificial Intelligence and Statistics (AISTATS 2022–2025)  
International Conference on Machine Learning (ICML 2022, 2025)  
Conference on Neural Information Processing Systems (NeurIPS 2025)

**Awards** NeurIPS Scholar Travel Fund 2022  
UCR Graduate School Fellowship 2021  
SFU Graduate School Fellowship 2017  
Mitacs Globalink Research Scholarship 2017  
Women in Computing Science (WiCS) @ SFU 2016 - 2018  
SCUT Outstanding Graduate (Top 1) 2016