Xiang (Jenny) Ren

Ph.D. Candidate in Computer Engineering
University of Toronto

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EDUCATION

Ph.D. in Computer Engineering   Sep 2017 - present
M.A.Sc. in Computer Engineering   Sep 2015 - Mar 2018
    University of Toronto
    Advisor: Prof. Ding Yuan

B.A.Sc. with Honours in Electrical Engineering   Sep 2010 - June 2015
    University of Toronto

RESEARCH INTERESTS

Understanding and improving the performance and reliability of software systems.

PUBLICATIONS

[1] Xiang (Jenny) Ren, Sitao Wang, Zhuqi Jin, David Lion, Adrian Chiu, Tianyin Xu, and Ding Yuan. Relational Debugging – Pinpointing Root Causes of Performance Problems. In *Proceedings of the 17th USENIX Symposium on Operating Systems Design and Implementation (OSDI'23)*, July 2023.
Acceptance rate: 19.6%

[2] Tanakorn Leesatapornwongsa, Xiang Ren, and Suman Nath. FlakeRepro: automated and efficient reproduction of concurrency-related flaky tests. In *Proceedings of the 30th ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE'22)*, November 2022. (Industry track)

[3] Ruibin Li, Xiang Ren, Xu Zhao, Siwei He, Michael Stumm, and Ding Yuan. ctFS: Eliminating File Indexing with Contiguous File System on Persistent Memory. In *Proceedings of the 20th USENIX Conference on File and Storage Technologies (FAST 22)*, February 2022.

[4] Xiang (Jenny) Ren, Kirk Rodrigues, Luyuan Chen, Camilo Vega, Michael Stumm, and Ding Yuan. An Analysis of Performance Evolution of Linux's Core Operations. In *Proceedings of the 27th ACM Symposium on Operating Systems Principles (SOSP19)*, October 2019.
Acceptance rate: 13.7%

[5] Yongle Zhang, Serguei Makarov, Xiang Ren, David Lion, and Ding Yuan. Pensieve: Non-Intrusive Failure Reproduction for Distributed Systems using the Event Chaining Approach. In *Proceedings of the 26th Symposium on Operating Systems Principles (SOSP '17)*, October 2017. Acceptance rate: 16.8%

PROFESSIONAL EXPERIENCE

- **Research Intern**, Microsoft Research Redmond, Mentor: Suman Nath   June - August 2020
  Project: Automating reproduction of flaky tests in cloud systems.

- **Research Assistant**, University of Toronto, Advisor: Prof. Ding Yuan   May - August 2014
  Project: Automating log analysis of distributed systems.

- **Software Engineering Intern**, Marin Software, San Francisco   May 2013 - May 2014
  Role: Data engineering, web programming & automating integration tests.

- **Research Assistant**, University of Toronto, Advisor: Prof. Tarek Abdelrahman   Summer 2012
  Project: Building support of parallel programming Pragmas in the LLVM compiler infrastructure.

TEACHING

- **Teaching Assistant**, ECE 1747H Parallel Programming   2020
- **Teaching Assistant**, ECE297 Design and Communication   2019
- **Teaching Assistant**, ECE 244 Programming Fundamentals   2015, 2016, 2018
- **Teaching Assistant**, CSC369 Operating Systems   2018
- **Teaching Assistant**, APS105 Computer Fundamentals   2017
- **Teaching Assistant**, ECE344 Operating Systems   2016

AWARDS & SCHOLARSHIPS

- University of Toronto Fellowship   2019
- Edward S. Rogers Sr. Graduate Scholarships   2018
- Queen Elizabeth II Graduate Scholarship   2017
- Ontario Graduate Scholarship   2016
- Bell Scholarship   2015