

Ding Yuan (Curriculum Vitae)

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Education

Ph.D. Computer Science Aug. 2006 - Dec. 2012
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN, IL

B.E. Computer Science and B.S. in Applied Mathematics Sept 2002 - Jul 2006
BEIHANG UNIVERSITY, Beijing, China

Professional Experience

Associate professor Jul. 1st, 2018 - Present
Assistant professor Jan. 2013 - Jun. 30th, 2018
University of Toronto, Dept. of Electrical and Computer Engineering

Co-Founder 2021 - Present
YScope Inc.

Select Honors and Recognitions

- ◇ Canada Research Chair in Systems Software, 2019 - present
- ◇ Meta (Facebook) Systems Research Award, 2022
- ◇ Gordon Slemon Award on Teaching Design, 2021
- ◇ Connaught Innovation Award, 2021
- ◇ Faculty of Engineering EngSoc Student Choice Award: Best Upper Year Instructors, 2021
- ◇ McCharles Prize for Early Research Distinction, 2018.
- ◇ Connaught Innovation Award, 2018
- ◇ NetApp Faculty Fellowship, 2016
- ◇ NetApp Faculty Fellowship, 2013
- ◇ University of Toronto Connaught New Researcher Award, 2013
- ◇ ACM SIGSOFT Distinguished Paper Award, 2011
- ◇ Saburo Muroga Fellowship, 2007
- ◇ University Golden Medal Prize in Beihang Univ., 2005

Impact

- ◇ CLP (Compressed Log Processor)[\[C5\]](#) [\[OSDI'21\]](#), a log compression and search technology, is deployed in Uber and other companies. Before CLP, Uber was forced to drop Petabytes of Spark logs due to scalability issues. With CLP, they are able to retain all of the logs, while achieving 169x savings on the logging cost. Uber published an engineering blog describing the impact made by CLP: <https://www.uber.com/en-US/blog/reducing-logging-cost-by-two-orders-of-magnitude-using-clp>.
- ◇ [\[C13\]](#) [\[OSDI'14\]](#) and its open-source bug detection tool, Aspirator, have made the following impact:
 - Aspirator is implemented by Google's Error Prone static checker, which is used by hundreds of companies and projects, including Hadoop and HBase.

- HBase developers started (and completed) a large project to address the issues discovered in the paper (see HBase-12187: <https://issues.apache.org/jira/browse/HBASE-12187>). It consists of 9 tasks, including using Aspirator as a check-in policy, thorough code review, use other static checkers including Coverity. It triggered a series of changes to their engineering practices.
- Aspirator has discovered thousands of software defects that could have led to serious service-level outage or data-loss. Developers fixed these bugs, and by our estimation it effectively improve the reliability of these systems by 33%[\[C13\]](#).
- The work is presented in multiple industry conferences, including the keynote of 2015 Cassandra Summit by Cassandra’s founder, InfoQ’s QCon, “goto;” conference 2016 Chicago, RICON 2014 (keynote), Surge 2014, and is included in “Papers We Love”, a developer community interested in reading and discussing computer science papers with over 10,000 members with chapters in over 30 cities around the world, and it is disseminated to all the HBase developers by HBase’s founder, appeared twice on the front page of Hacker News, tens of blogs, featured by “the morning paper” and is considered a highlight of the year, and thousands Twitter tweets. Some universities have made this paper a mandatory read in its undergraduate programming class.
- ◇ Our paper that discovered and eliminated the warm-up overhead in Java Virtual Machine (JVM) [\[C12\]](#) is covered by The Next Platform (<http://bit.ly/2gog2QS>).
- ◇ Contributed over 500 patches to widely used open-source software projects including Linux Kernel, Hadoop, HBase, Cassandra, Postgres, Apache httpd, etc.
- ◇ Six papers [\[C7\]\[C2\]\[C3\]\[C5\]\[C12\]\[C13\]](#) invited to publish in USENIX ;login:
- ◇ Four papers [\[C7\]\[C8\]\[C9\]\[C13\]](#) featured on The morning paper.

Research Contributions

Conference Publications

- [C1] Hubble: Performance Debugging with In-Production, Just-In-Time Method Tracing on Android. Yu Luo, Kirk Rodrigues, Lijin Jiang, Bing Xia, David Lion, Ding Yuan. *In the Proceedings of the 16th USENIX Symposium on Operating Systems Design and Implementation (OSDI’22)*, July 11-13, 2022. Acceptance rate: 19.5% = 49/251
- [C2] Investigating Managed Language Runtime Performance: Why JavaScript and Python are 8x and 29x slower than C++, yet Java and Go can be Faster? David Lion, Adrian Chiu, Michael Stumm, Ding Yuan. *In the Proceedings of the 2022 USENIX Annual Technical Conference (ATC’22)*, July 11-13, 2022. Acceptance rate: 16.2% = 64/393
Invited to appear in USENIX ;login:
- [C3] ctFS: Replacing File Indexing with Hardware Memory Translation through Contiguous File Allocation for Persistent Memory. Ruibin Li, Xiang Ren, Xu Zhao, Siwei He, Michael Stumm, Ding Yuan. *In the Proceedings of the 20th USENIX Conference on File and Storage Technologies (FAST’22)*, pages 35-49, February 22-24, 2022. Best paper award runner up. Acceptance rate: 21.5% = 28/130
Invited to appear in USENIX ;login: and ACM Transaction on Storage (TOS)
Best paper honorable mention
- [C4] Understanding and Detecting Software Upgrade Failures in Distributed Systems Yongle Zhang, Junwen Yang, Zhuqi Jin, Utsav Sethi, Kirk Rodrigues, Shan Lu, Ding Yuan. *In the Proceedings of The 28th ACM Symposium on Operating Systems Principles (SOSP’21)*, pages 116-131, October 25-28, 2021. Acceptance rate: 15.5% = 54/348
- [C5] CLP: Efficient and Scalable Search on Compressed Text Logs Kirk Rodrigues, Yu Luo, Ding Yuan. *In the 15th USENIX Symposium on Operating Systems Design and Implementation (OSDI’21)*, pages 183-198, July 2021, Online Acceptance rate: 18.8% = 31/165
Invited to appear in USENIX ;login:

- [C6] M3: End-to-End Memory Management in Elastic Systems Software Stack. David Lion, Adiran Chiu, Ding Yuan. *In the 16th ACM European Conference on Computer Systems (EuroSys 2021)*, pages 507-522, April 2021, Online Acceptance rate: 14.1% = 27/191
- [C7] The Inflection Point Hypothesis: A Principled Debugging Approach for Locating the Root Cause of a Failure. Yongle Zhang, Kirk Rodrigues, Yu Luo, Michael Stumm, Ding Yuan. *In the 27th ACM Symposium on Operating Systems Principles (SOSP'19)*, pages 131-146, October 2019, Huntsville, Ontario, Canada Acceptance rate: 13.8% = 38/276
Invited to appear in USENIX ;login:
- [C8] An Analysis of Performance Evolution of Linux's Core Operations. Xiang (Jenny) Ren, Kirk Rodrigues, Luyuan Chen, Camilo Vega, Michael Stumm, Ding Yuan. *In the 27th ACM Symposium on Operating Systems Principles (SOSP'19)*, pages 554-569, October 2019, Huntsville, Ontario, Canada. Acceptance rate: 13.8% = 38/276
- [C9] Log20: Fully Automated Optimal Placement of Log Printing Statements under Specified Overhead Threshold. Xu Zhao, Kirk Rodrigues, Yu Luo, Michael Stumm, Ding Yuan, and Yuanyuan Zhou *In the 26th ACM Symposium on Operating Systems Principles (SOSP'17)* Acceptance rate: 16.8% = 39/232
- [C10] Non-Intrusive Failure Reproduction for Distributed Systems using the Partial Trace Principle. Yongle Zhang, Serguei Makarov, Xiang Ren, David Lion, and Ding Yuan. *In the 26th ACM Symposium on Operating Systems Principles (SOSP'17)* Acceptance rate: 16.8% = 39/232
- [C11] Non-intrusive Performance Profiling of Entire Software Stacks based on the Flow Reconstruction Principle. Xu Zhao, Kirk Rodrigues, Yu Luo, Ding Yuan, and Michael Stumm. *In the proceedings of the 12th USENIX Symposium on Operating Systems Design and Implementation (OSDI'16)*. Pages 603 - 618. Acceptance rate: 17.6% = 47/267.
- [C12] Don't Get Caught In the Cold, Warm-up Your JVM: Understand and Eliminate JVM Warm-up Overhead In Data-parallel Systems. David Lion, Adrian Chiu, Xin Zhuang, Hailong Sun, Nikola Grcevski, and Ding Yuan. *In the proceedings of the 12th USENIX Symposium on Operating Systems Design and Implementation (OSDI'16)*. Pages 383 - 400. Acceptance rate: 17.6% = 47/267. **Invited to appear in USENIX ;login:**
- [C13] Simple Testing Can Prevent Most Critical Failures: An Analysis of Production Failures in Distributed Data-intensive Systems. Ding Yuan, Yu Luo, Xin Zhuang, Guilherme Rodrigues, Xu Zhao, Yongle Zhang, Pranay U. Jain, and Michael Stumm. *In the Proceedings of the 11th USENIX Symposium on Operating Systems Design and Implementation (OSDI '14)*. Pages 249 - 265. Acceptance rate: 18% = 42/228.
Invited to appear in USENIX ;login:
- [C14] lprof: A Non-intrusive Request Flow Profiler for Distributed Systems. Xu Zhao, Yongle Zhang, David Lion, Muhammad Faizan, Yu Luo, Ding Yuan, and Michael Stumm. *In the Proceedings of the 11th USENIX Symposium on Operating Systems Design and Implementation (OSDI '14)*. Pages 629 - 644. Acceptance rate: 18% = 42/228.
- [C15] Do Not Blame Users for Misconfigurations. Tianyin Xu, Jiaqi Zhang, Peng Huang, Jing Zheng, Tianwei Sheng, Ding Yuan, Yuanyuan Zhou, and Shankar Pasupathy. *In the Proceedings of the 24th ACM Symposium on Operating Systems Principles (SOSP'13)*. Pages 244-259. Acceptance rate: 19% = 30/160.
- [C16] Be conservative: Enhancing failure diagnosis with proactive logging. Ding Yuan, Soyeon Park, Peng Huang, Yang Liu, Michael M. Lee, Xiaoming Tang, Yuanyuan Zhou, and Stefan Savage. *In the Proceedings of the 10th USENIX Symposium on Operating System Design and Implementation (OSDI'12)*. Pages 293-306. Acceptance rate: 11.6% = 25/215.
- [C17] Characterizing Logging Practices in Open-Source Software. Ding Yuan, Soyeon Park and Yuanyuan Zhou. *In the Proceedings of the 34th International Conference on Software Engineering (ICSE'12)*, pages 102-112, Zurich, Switzerland, June 2012 Acceptance rate: 21% = 87/408.

- [C18] How Do Fixes Become Bugs? – A Comprehensive Characteristic Study on Incorrect Fixes in Commercial and Open Source Operating Systems. Zuoning Yin, Ding Yuan, Yuanyuan Zhou, Shankar Pasupathy and Lakshmi Bairavasundaram. *In the proceedings of the 19th ACM SIGSOFT Symposium on the Foundations of Software Engineering (FSE'11)*, pages 26-36, September 2011. Szeged, Hungary *Acceptance rate: 16.7% = 34/203.*
ACM SIGSOFT Distinguished paper award.
- [C19] Context-based Online Configuration-Error Detection. Ding Yuan, Yinglian Xie, Rina Panigrahy, Junfeng Yang, Chad Verbowski and Arunvijay Kumar. *In the proceedings of the 2011 USENIX Annual Technical Conference (ATC'11)*, pages 313-326, June 2011. Portland, OR *Acceptance rate: 16.7% = 34/203.*
- [C20] Improving Software Diagnosability via Log Enhancement. Ding Yuan, Jing Zheng, Soyeon Park, Yuanyuan Zhou and Stefan Savage. pages 3-14, March 2011. Newport Beach, CA *In the Proceedings of the 16th International Conference on Architecture Support for Programming Language and Operating Systems (ASPLOS'11)*, pages 3-14, March 2011. Newport Beach, CA *Acceptance rate: 21.2% = 32/151.*
Nominated for Best Paper Award and fast forwarded to ACM Transaction on Computer Systems (TOCS).
- [C21] SherLog: Error Diagnosis by Connecting Clues from Run-time Logs. Ding Yuan, Haohui Mai, Weiwei Xiong, Lin Tan, Yuanyuan Zhou and Shankar Pasupathy. *In the Proceedings of the 15th International Conference on Architecture Support for Programming Language and Operating Systems (ASPLOS'10)*, pages 143-154, March 2010. Pittsburgh, PA. *Acceptance rate: 17.7% = 32/181.*
Nominated for Best Paper Award.
- [C22] CISpan: Comprehensive Incremental Mining Algorithms of Closed Sequential Patterns for Multi-Versional Software Mining. Ding Yuan, Kyuhyung Lee, Hong Cheng, Gopal Krishna, Zhenmin Li, Xiao Ma, Yuanyuan Zhou and Jiawei Han. *In the Proceedings of SIAM: SIAM International Conference on Data Mining (SDM08)*, pages 84-95, April 2008. Atlanta, GA. *Acceptance rate: 14.2% = 40/282.*
- [C23] /* iComment: Bugs or Bad Comments? */ Lin Tan, Ding Yuan, Gopal Krishna and Yuanyuan Zhou. *21st ACM Symposium on Operating Systems Principles (SOSP'07)*, pages 145-158, October 2007. Stevenson, WA *Acceptance rate: 14.2% = 40/282.*

Journal and Magazine Publications

- [J1] Kairux: Distributed System Fault Localization based on The Inflection Point Hypothesis Yongle Zhang, Kirk Rodrigues, Yu Luo, Michael Stumm, and Ding Yuan *In USENIX ;login.*, Jan 2023.
- [J2] ctFS: Replacing File Indexing with Hardware Memory Translation through Contiguous File Allocation for Persistent Memory. Ruibin Li, Xiang Ren, Xu Zhao, Siwei He, Michael Stumm, Ding Yuan. *ACM Transaction on Storage (TOS)*, Volume 18, Issue 4, November 2022, Article No.: 30, pp 1–24
- [J3] Investigating Managed Language Runtime Performance: Why JavaScript and Python are 8x and 29x slower than C++, yet Java and Go can be Faster? David Lion, Adrian Chiu, Michael Stumm, Ding Yuan. *In USENIX ;login.*, June 2022.
- [J4] ctFS: Converting File Index Traversals to Hardware Memory Translation through Contiguous File Allocation for Persistent Memory Ruibin Li, Xiang Ren, Xu Zhao, Siwei He, Michael Stumm, Ding Yuan. *In USENIX ;login.*, February 2022.
- [J5] Don't Get Caught In the Cold, Warm-up Your JVM: Understand and Eliminate JVM Warm-up Overhead In Data-parallel Systems. David Lion, Adrian Chiu, Xin Zhuang, Hailong Sun, Nikola Grcevski, and Ding Yuan. *In USENIX ;login: 42(1)*, Pages 46-51, March 2017.
- [J6] Simple Testing Can Prevent Most Critical Failures: An Analysis of Production Failures in Distributed Data-intensive Systems. Ding Yuan, Yu Luo, Xin Zhuang, Guilherme Rodrigues, Xu Zhao,

Yongle Zhang, Pranay U. Jain, and Michael Stumm. *In USENIX ;login: 40(1)*, Pages 18-23, February 2015.

- [J7] Improving Software Diagnosability via Log Enhancement. Ding Yuan, Jing Zheng, Soyeon Park, Yuanyuan Zhou and Stefan Savage. *In ACM Transactions on Computer Systems (TOCS)*, 30(1), pages 1-28, February 2012. (Fast-forwarded from ASPLOS'11.)

Refereed Workshop Publications

- [W1] The Game of Twenty Questions: Do You Know Where to Log? Xu Zhao, Kirk Rodrigues, Yu Luo, Michael Stumm, Ding Yuan, Yuanyuan Zhou. *In the Proceedings of the 16th Workshop on Hot Topics in Operating Systems (HotOS)*, pages 125 - 131, May 2017. Whistler, BC, Canada
- [W2] HotComments: How to Make Program Comments More Useful? Lin Tan, Ding Yuan and Yuanyuan Zhou. *In the Proceedings of the 11th Workshop on Hot Topics in Operating Systems (HotOS)*, pages 19:1-19:6, May 2007. San Diego, CA

Patents

- [P1] **Fingerprinting event logs for system management troubleshooting.** Rina Panigrahy, Chad Verbowski, Yinglian Xie, Junfeng Yang, Ding Yuan. *US patent 8,069,374*, allowed on 2011/11/29. Assigned to Microsoft Corporation.
- [P2] **Systems and processes for computer log analysis.** Muhammad Faizan, David Lion, Yu Luo, Michael Stumm, Ding Yuan, Xu Zhao, Yongle Zhang. *US Patent 9,720,671*. Granted on 2017/8/8.
- [P3] **Systems and processes for computer log analysis.** Muhammad Faizan, David Lion, Yu Luo, Michael Stumm, Ding Yuan, Xu Zhao, Yongle Zhang. *US Patent 10,484,506*. Granted on 2019/11/19. (This is a continuation patent on US Patent 9,720,671.)
- [P4] **Log Processing and Analysis.** Yu Luo, Kirk Rodrigues, Michael Stumm, Ding Yuan, Xu Zhao. *US Patent 1,064,712 B2*. Granted on 2020-05-05
- [P5] **Compression, Searching, and Decompression of Log Messages.** Yu Luo, Kirk Rodrigues, Ding Yuan. *US patent application No. 17/097550*. Applied in 2020.
- [P6] **Compression, Searching, and Decompression of Log Messages.** Yu Luo, Kirk Rodrigues, Ding Yuan. *Chinese patent application No. 202011282843.7*.

Advising

All the advisees below are solely supervised by me.

PhD (8):

- Yongle Zhang (2013/9 - 2020/21). First employment: Tenure-track assistant professor, Computer Science Department, Purdue University. Thesis: “Automating Failure Diagnosis for Distributed Systems”. **ACM SIGOPS Dennis M. Ritchie Thesis Award.**
- Xu Zhao (2015/9 - 2020/8). Facebook PhD Fellow, 2018-2020. First employment: Research scientist, Facebook. Thesis: “Automating Log-based Software Debugging on Distributed Server Stacks”.
- Kirk Rodrigues (2017/9 - 2023/3). First employment: Co-Founder of YScope.
- David Lion (2016/9 - 2023/8 (expected)). First employment: Founding engineer at YScope.
- Yu Luo (2017/9 - 2023/8 (expected)). First employment: Co-Founder of YScope.
- Xiang Ren (2017/9 - present).
- Adrian Chiu (2021/1 - present).
- Ruibin Li (2021/9 - present).

MASc (16):

- Xu Zhao (2013/9 - 2015/9). Thesis: “lprof: A Non-intrusive Request Flow Profiler for Distributed Systems”.
- David Lion (2014/9 - 2017/5). Thesis: “Don’t Get Caught In The Cold, Warm-up Your JVM: Understand and Eliminate JVM Warm-up Overhead in Data-parallel Systems”.
- Xiang Ren (2015/9 - 2018). Thesis: “Achieving Scalable and Reliable Non-Intrusive Failure Reproduction in Distributed Systems by Enhancing the Event Chaining Approach”.
- Serguei Makarov (2015/9 - 2017). Thesis: “An Event-based Language for Programmable Debugging”.
- Yu Luo (2017/9 - 2018/1). Thesis: “aprof: An Offline Non-Intrusive Call-tree Profiler for Distributed Systems”.
- Kirk Rodrigues (2017/9 - 2018/1). Thesis: “Non-Intrusive, Automated Log Discovery and Parsing”.
- Adrian Chiu (2018/9 - 2021/1). Thesis: “Profiling the Performance of Programming Language Runtimes and Towards Building a New Python Runtime”.
- Ruibin Li (2019/9 - 2022/1). Thesis: “ctFS: Eliminating File Indexing with Contiguous File System on Persistent Memory”.
- Zhuqi Jin (2020/9 - 2022/1). Thesis: “Understanding and Detecting Software Upgrade Failures in Distributed Systems”.
- Haiqi Xu (2021/9 - present).
- Rishikesh Devsot (2021/9 - present).
- Rui Wang (2021/9 - present).
- Devin Gibson (2022/9 - present).
- Sitao Wang (2022/9 - present).
- Xiaochong Wei (2022/9 - present).
- Yifan Yu (2022/9 - present).

Visiting scholar (1):

- Hailong Sun (2015/8 - 2016/8), now associate professor at Beihang University.

Undergraduate students (31):

J. Edgar McAllister Summer Research Fellowships (1):

- Zhihao Lin (2022/5 - 2022/8);

NSERC Undergraduate Student Research Award for summer research (5):

- Barney Wei (2021/5 - 2021/8);
- Ruibin Li (2019/5 - 2019/9),
- Devin Gibson (2018/5 - 2018/9),
- Adrian Chiu (2015/5 - 2015/8);
- Xiang Ren (2014/5 - 2014/8);

University of Toronto Excellence Award (6):

- Zhihao Lin (2020/5 - 2020/9),
- Rishikesh Devsot (2018/5 - 2018/9),
- Wen Bo Li (2016/5 - 2016/9),
- Yizhan Jiang (2016/5 - 2016/9),
- Yeqi Shi (2015/5 - 2015/8),
- Xin Zhuang (2013/5 - 2013/8),

Thesis research in my group (5):

- Adrian Chiu (2015/8 - present);
- David Lion (2013/11 - 2014/4, -> Univ. of Toronto graduate school),
- Muhammad Faizan (2013/11 - 2014/4, -> Microsoft),
- Neil Newman (2013/11 - 2014/4, -> UBC graduate school),

- Alan Cheung (2013/11 - 2014/4);
- Summer research (14):
 - Naman Gulati (2021/5 - 2021/9),
 - Sitao Wang (2019/5 - 2019/9),
 - Ruibin Li (2017/5 - 2017/9),
 - Rayan Mehramiz (2017/5 - 2017/9),
 - Yang Li (2017/5 - 2017/9),
 - Danting Dong (2017/5 - 2017/9),
 - Zheping Jiang (2016/5 - 2017/9),
 - Matheus Yokoyama Figueiredo (2015/5 - 2015/8),
 - Gianfranco Penna (2015/5 - 2015/8),
 - Henrique Carvalho Silva (2014/5 - 2014/8),
 - Leticia Koga (2014/5 - 2014/8),
 - Yu Luo (2013/5 - 2013/8),
 - Guilherme Rodrigues (2013/5 - 2013/8),
 - Pranay U. Jain (2013/5 - 2013/8).

Teaching Experience

- ECE 344, "Operating Systems", Spring 2021
Enrolment: 126, Evaluation as instructor: 4.4/5 (5: Excellent, 4: Very good)
- ECE 1759, "Advanced Operating Systems", Fall 2020
Enrolment: 6, Evaluation as instructor: 5/5
- ECE 344, "Operating Systems", Spring 2020
Enrolment: 111, Evaluation as instructor: 3.7/5 (5: Excellent, 4: Very good)
- ECE 454, "Computer Systems Programming (co-taught with Michael Stumm)", Fall 2018
Enrolment: 100, Evaluation as instructor: 4.0/5 (5: Excellent, 4: Very good)
- ECE 344, "Operating Systems", Spring 2017
Enrolment: 111, Evaluation as instructor: 4.1/5 (5: Excellent, 4: Very good)
- ECE 244, "Programming Fundamentals", Fall 2016
Enrolment: 121, Evaluation as instructor: 4.2/5 (5: Excellent, 4: Very good)
- ECE 1759, "Advanced Operating Systems", Fall 2016
Enrolment: 3, Evaluation as instructor: N/A
- ECE 1759, "Advanced Operating Systems", Spring 2016
Enrolment: 10, Evaluation as instructor: 4.67/5 (5: Excellent, 4: Very good)
- ECE 344, "Operating Systems", Spring 2016
Enrolment: 94, Evaluation as instructor: 4.0/5 (5: Excellent, 4: Very good)
- ECE 344, "Operating Systems", Spring 2015
Enrolment: 86, Evaluation as instructor: 4.2/5 (5: Excellent, 4: Very good)
- ECE 1759, "Advanced Operating Systems", Fall 2014
Enrolment: 7, Evaluation as instructor: 4.75/5 (5: Excellent, 4: Very good)
- ECE 454, "Computer System Programming", Section 1, Fall 2014
Enrolment: 68, Evaluation as instructor: 4.5/5 (5: Excellent, 4: Very good)
- ECE 344, "Operating Systems", Spring 2014.
Enrolment: 101, Evaluation as instructor: 4.5/5 (5: Excellent, 4: Very good)
- ECE 454, "Computer System Programming", Fall 2013
Enrolment: 101, Evaluation as instructor: 4.2/5 (5: Excellent, 4: Very good)
- ECE 344, "Operating Systems", Spring 2013
Enrolment: 108, Evaluation as instructor: 6.0/7 (7: Outstanding, 6: Very good)

Service

Program Committee (Co-)chair

2023 ACM European Conference on Computer Systems (EuroSys) Poster

2019 The 17th ACM Workshop on Hot Topics in Operating Systems (HotOS)

2019 The 10th ACM SIGOPS Asia-Pacific Workshop on Systems (APSys)

2017 Inaugural ACM SOSP Student Research Competition (SRC)

Program Committee Member

2023 ACM SIGOPS 28th Symposium on Operating Systems Principles (SOSP)

2023 USENIX Symposium on Operating Systems Design and Implementation (OSDI)

2023 ACM European Conference on Computer Systems (EuroSys)

2022 USENIX Symposium on Operating Systems Design and Implementation (OSDI)

2021 ACM SIGOPS 28th Symposium on Operating Systems Principles (SOSP)

2021 USENIX Symposium on Operating Systems Design and Implementation (OSDI)

2021 International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS)

2021 1st Workshop on High Availability and Observability of Cloud Systems (HAOC)

2020 USENIX Symposium on Operating Systems Design and Implementation (OSDI)

2020 USENIX Symposium on Networked Systems Design and Implementation (NSDI)

2018 USENIX Symposium on Operating Systems Design and Implementation (OSDI)

2018 European Conference on Computer Systems (EuroSys)

2018 International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS), ERC

2017 ACM SIGOPS 26th Symposium on Operating Systems Principles (SOSP)

2016 International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS)

2016 International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS), Poster and Lightning session chair

2015 The 25th ACM Symposium on Operating Systems Principles (SOSP'15) (Poster PC)

2015 USENIX Annual Technical Conference

2015 USENIX LISA Conference

2014 USENIX/ACM OSDI (External Review Committee)

2014 USENIX Annual Technical Conference

2014 ACM SIGMETRICS

2014 USENIX ICAC

2014 PACT student competition

2014 IBM CASCON

2012 USENIX Workshop on Managing Systems Automatically and Dynamically (MAD)

Other Services

ACM Publication Processes Committee Member, 2020-present

ACM HotOS Workshop Steering Committee, 2019-present

Organizer, Papers We Love - Toronto, 2021-present