CURRICULUM VITAE

ANDREW QUINN

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INTRODUCTION

I am a Microsoft Research Fellow and a National Science Foundation Graduate Research Fellow.

My dissertation applies techniques from data-intensive computing (i.e., 'big-data'), such as large-scale parallelization and relational query models, to software reliability tasks like debugging, security forensics, and data provenance. I have also worked on projects to improve the reliability of applications that use emerging hardware, including persistent memory and edge computing.

EDUCATION

University of Michigan — *Ann Arbor, MI*
Ph.D., Computer Science and Engineering — (Sep 2015–May 2021 (expected))

University of Michigan — *Ann Arbor, MI*
M.S., Computer Science and Engineering — (Sep 2015–May 2017)

Denison University — *Granville, OH*
B.S., Computer Science and B.A., Mathematics — (Aug 2010–May 2014)
Honors: *summa cum laude*, Phi Beta Kappa, Deans List

FELLOWSHIPS AND AWARDS

1. **Microsoft Research Fellowship**. Two year fellowship awarded to nine early-career Ph.D. students (2017)
2. **National Science Foundation Graduate Student Research Fellowship**. Three year fellowship awarded to early-career Ph.D. students (2017)
3. **John L. Gilpatrick Mathematics Award, Denison University**. Awarded to the most outstanding senior major in the Math and CS department (2014)
4. **Ted Barclay Top Five Student Athlete, Denison University**. Awarded to the top five student athletes at Denison University based on GPA. (2014)

PEER-REVIEWED PUBLICATIONS

1. Gefei Zuo, Jiacheng Ma, **Andrew Quinn**, Pramod Bhatotia, Pedro Fonseca, and Baris Kasikci. *Reproducing Production Failures with Execution Reconstruction.* To appear in Proceedings of the 42nd ACM SIGPLAN Conference on Programming Language Design and Implementation. June 2021. Acceptance Rate: 87/320 = 27.2%
2. Ian Neal, **Andrew Quinn**, and Baris Kasikci. *Hippocrates: Healing Persistent Memory Bugs Without Doing Any Harm.* To appear in the Proceedings of the Twenty-Sixth International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS). April 2021. Acceptance Rate: 75/398 = 18.8%
3. Ian Neal, Ben Reeves, Ben Stoler, **Andrew Quinn**, Youngjin Kwon, Simon Peter and Baris Kasikci. *Agamotto: How Persistent is your Persistent Memory Application?.* In Proceedings of the 2020 USENIX Symposium on Operating Systems Design and Implementation (OSDI). November 2020. Acceptance Rate: 70/398 = 17.6%
4. Matt Furlong, **Andrew Quinn**, and Jason Flinn. *The case for Determinism on the Edge.* In 2nd USENIX Workshop on Hot Topics in Edge Computing (HotEdge). July 2019. Acceptance Rate: 22/39 = 56%
5. **Andrew Quinn**, Michael Cafarella, and Jason Flinn. *You can't debug what you can't see: Expanding*

observability with the OmniTable. In Proceedings of the Workshop on Hot Topics in Operating Systems (HotOS). May 2019. Acceptance Rate: 30/125 = 24%

6. **Andrew Quinn**, Jason Flinn, and Michael Cafarella. *Sledgehammer: Cluster-fueled Debugging*. In Proceedings of the 2018 USENIX Symposium on Operating Systems Design and Implementation (OSDI). October 2018. Acceptance Rate: 47/264 = 17.8%
7. **Andrew Quinn**, David Devecsery, Peter M. Chen and Jason Flinn. *JetStream: Cluster-scale Parallelization of Information Flow Queries*. In Proceedings of the 2016 USENIX Symposium on Operating Systems Design and Implementation (OSDI). November 2016. Acceptance Rate: 47/267 = 17.6%

PRESENTATIONS

1. **You can't debug what you can't see: Expanding Observability with the OmniTable**. Workshop on Hot Topics in Operating Systems (HotOS) (May 2019)
2. **Sledgehammer: Cluster-fueled Debugging**. USENIX Symposium on Operating Systems Design and Implementation (OSDI) (Oct 2018)
3. **JetStream: Cluster-Scale Parallelization of Information Flow Queries**. USENIX Symposium on Operating Systems Design and Implementation (OSDI) (Nov 2016)
4. **Power Management for Malleable Job Scheduling**. Denison University department of Math and Computer Science FaST talk (Apr 2014)

TEACHING EXPERIENCE

1. **Graduate Student Instructor**. Data Structures and Algorithms, University of Michigan, Ann Arbor, MI (May 2019–Jun 2019)
2. **Computer Science Drop-in Tutor**. Introduction to Computer Science, Denison University, Granville, OH (Jan 2012–May 2014)

PROFESSIONAL SERVICE

1. **External Review Committee Member**. Architectural Support for Programming Languages and Operating Systems (ASPLOS) (2021)
2. **Shadow Program Committee Member**. European Conference on Computer Systems (EuroSys) (2021)
3. **Ph.D. Admissions Committee Member**. University of Michigan Department of Computer Science and Engineering (2018)

PROFESSIONAL EXPERIENCE

1. **Graduate Student**. Advisor: Dr. Jason Flinn and Dr. Baris Kasikci, University of Michigan, Ann Arbor, MI (Sep 2015–Present)
2. **Research Intern in the Systems Group**. Mentor: Dr. Suman Nath, Microsoft Corp., Redmond, WA (May 2017–Aug 2017)
3. **Software Development Engineer**. International Business Machines (IBM), Dublin, OH (Jun 2014–Aug 2015)
4. **Research Assistant in Online Algorithms**. Mentor: Dr. Jessen Havill, Denison University, Granville, OH (Aug 2013–May 2014) (May 2012–Aug 2012)
5. **Software Development Engineering Intern**. International Business Machines (IBM), Dublin, OH (May 2013–Aug 2013)

OUTREACH ACTIVITIES

1. **Discover Engineering**. University of Michigan, Ann Arbor, MI (Aug 2019)
2. **Techie Club**. Georgian Heights Elementary, Columbus, OH (Aug 2014–Aug 2015)
3. **A Call to College**. Newark Elementary Schools, Newark, OH (Sep 2012–Dec 2013)