Qiao Zhang

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qiao@cs.washington.edu

EDUCATION

UNIVERSITY OF WASHINGTON
Ph.D in Computer Science
Expected June 2018 | Seattle, WA
GPA: 3.9 / 4.0
Advisors: Tom Anderson, Arvind Krishnamurthy

WILLIAMS COLLEGE
BA in Computer Science and Physics
June 2013 | Williamstown, MA
summa cum laude and Phi Beta Kappa
GPA: 3.99 / 4.0

CALTECH
Visiting Student
Oct 2011 - June 2012 | Pasadena, CA
GPA: 4.0 / 4.0

RESEARCH INTERESTS

Distributed Systems, Datacenter Networks, Deep Learning Systems

COURSEWORK

SYSTEMS
CSE 550: Computer Systems
CSE 551: Operating Systems
CSE 552: Distributed Systems
CSE 548: Computer Architecture
CSE 544: Data Management

MACHINE LEARNING
CSE 546: Machine Learning
CSE 517: Natural Language Processing
CSE 515: Statistical Methods

TEACHING ASSISTANT

Deep Learning System (UW CSE 599G1)
Operating Systems (UW CSE 451)
Computer Networks (UW CSE 461)

PROGRAMMING

Fluent:
C++ • C • Python
Familiar:
Java • C# • MySQL

EXPERIENCE

MICROSOFT RESEARCH | Research Intern, Systems
June 2017 – Sep 2017 | Redmond, WA

- Designed, built and deployed a streaming system that can diagnose and localize failures responsible for IaaS VMs crashes using the machine learning techniques of Lasso Regression and Hypothesis Testing. Submitted a research paper based on this work to the top networking conference NSDI 2018.

FACEBOOK | Software Engineering Intern, Net Systems
July 2016 - Oct 2016 | Palo Alto, CA

- Designed, built and deployed a scalable TCP incast detection system that instruments end-host TCP stack using bcc and collects TCP statistics using a streaming system.

GOOGLE | Software Engineering Intern, Platforms Networking
Sept - Dec 2015 | Mountain View, CA

- Used Integer Program Solver to synthesize network topology to achieve desired load balancing properities.

GOOGLE | Software Engineering Intern, MapReduce
June - August 2014 | Mountain View, CA

- Designed and implemented fine-grained locking to improve transaction throughput for the 2nd generation MapReduce backend.

PUBLICATIONS

- Qiao Zhang, Guo Yu, Chuanxiong Guo, Yingnong Dang, Nick Swanson, Xinsheng Yang, Randolph Yao, Murali Chintalapati, Arvind Krishnamurthy, Tom Anderson. "Virtual Disk Failure Diagnosis and Pattern Detection for the IaaS Service". NSDI 2018.
- Qiao Zhang, Vincent Liu, Hongyi Zeng, Arvind Krishnamurthy. "High-Resolution Measurement of Data Center Microbursts". IMC 2017.
- Danyang Zhuo, Qiao Zhang, Xin Yang, Vincent Liu "Canaries in the Network". HotNets 2016.
- Danyang Zhuo, Qiao Zhang, Tom Anderson, Arvind Krishnamurthy, Vincent Liu "Rack-level Congestion Control". HotNets 2016.
- Danyang Zhuo, Qiao Zhang, Dan Ports, Arvind Krishnamurthy and Tom Anderson "Machine Fault Tolerance for Reliable Datacenter Systems". APSYS 2014.
- Simon Peter, Umar Javed, Qiao Zhang, Doug Woos, Tom Anderson, and Arvind Krishnamurthy. "One Tunnel is Enough". SIGCOMM 2014.
- Qiao Zhang, Shyam Gollokota, Ben Taskar, Rajesh Rao. "A Non-invasive Tongue Machine Interface". CHI 2014.

AWARDS

2008 National Mathematics Olympiad (Singapore) Silver Medal
2007 National Physics Olympiad (Singapore) Bronze Medal

GITHUB

Distributed Lock Service Using Paxos `github.com/zhangqiaorjc/cse550`
GPU Executor for Deep Learning `github.com/dlsys-course/assignment2`