

Omid Mashayekhi

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Education

Stanford University

Ph.D. in Electrical Engineering, Cloud Computing
Ph.D. Minor in Computer Science, Systems Track
M.Sc. in Electrical Engineering, Networking Systems

Stanford, CA
Winter 2013 - Spring 2017
Winter 2013 - Spring 2017
Fall 2011 - Spring 2013

Sharif University of Technology

B.Sc. in Electrical Engineering, Communication Systems

Tehran, Iran
Fall 2007 - Spring 2011

Experience

Staff Software Engineer at Google

NetInfra, developing distributed software systems for networking applications.

Mountain View, CA
Summer 2017 - Present

Software Engineer Intern at bebop Inc.

Back-end engineer working on developing a low latency data store.

Los Altos, CA
Summer 2015

RA at Stanford Information Networks Group (SING)

Diverse projects from cloud computing and graphical simulations to full duplex radio.

Stanford University
Fall 2011 - Spring 2017

Software Engineer Intern at Cisco Systems

Software engineer at Wireless Networking Business Unit (WNBU).

San Jose, CA
Summer 2012

Teaching Experience

Course Assistant in CS344C, Cloud Simulation Systems.

Stanford University
Spring 2013

RA at Advanced Communications Research Institute (ACRI)

Research in power estimation and coding techniques for CDMA systems

Sharif University
Spring 2009 - Summer 2011

Selected Projects

Jupiter: Google's data center networking technology with traffic and topology engineering through SDN.

Nimbus: a cloud computing framework for fast data analytics and HPC applications.

Janus: centralized MAC protocol for full duplex radio that realizes double capacity.

Predicting x86 Runtime: supervised learning algorithms to predict serialized x86 programs runtime.

Packet Classification in Presence of Wildcard: scalable, memory efficient, software-based algorithm.

OpenFlow Controller for DCell: simulating DCell topology for data centers using Mininet OpenFlow controller.

Selected Papers

L. Poutievski, **O. Mashayekhi**, J. Ong, A. Singh, M. Tariq, R. Wang, J. Zhang, V. Beauregard, P. Conner, S. Gribble, R. Kapoor, S. Kratzer, N. Li, H. Liu, K. Nagaraj, J. Ornstein, S. Sawhney, R. Urata, L. Vicisano, K. Yasumura, S. Zhang, J. Zhou, A. Vahdat "Jupiter Evolving: Transforming Google's Datacenter Network via Optical Circuit Switches and Software-Defined Networking", In Proceedings of ACM SIGCOMM 2022.

O. Mashayekhi, C. Shah, H. Qu, A. Lim, P. Levis "Automatically Distributing Eulerian and Hybrid Fluid Simulations in the Cloud", In ACM Transactions on Graphics, vol. 37, no. 2, Article 24, June 2018, Presented at SIGGRAPH 2018.

O. Mashayekhi, H. Qu, C. Shah, P. Levis "Execution Templates: Caching Control Plane Decisions for Strong Scaling of Data Analytics", In proceedings of 2017 USENIX Annual Technical Conference (USENIX ATC '17).

H. Qu, **O. Mashayekhi**, C. Shah, P. Levis "Decoupling the Control Plane from Program Control Flow for Flexibility and Performance in Cloud Computing", In Proceedings of the 13th European Conference on Computer Systems (EuroSys '18), 2018

J. Y. Kim, **O. Mashayekhi**, H. Qu, M. Kazandjieva, and P. Levis, "Janus: A Novel MAC Protocol for Full Duplex Radio", Stanford CSTR 2013-02, 2013.

O. Mashayekhi, and F. Marvasti, "Uniquely Decodable Codes with Fast Decoder for Overloaded Synchronous CDMA Systems", In IEEE Transactions on Communication, vol. 60, no. 11, pp. 3145-3149, November 2012.

Patents

O. Mashayekhi, and F. Marvasti, "Uniquely Decodable Codes and Decoder for Overloaded Synchronous CDMA Systems", US Patent 8,582,604, 2013

Computer Skills

Programming Languages: C++, C, Python, Java, JavaScript, Shell script, Ruby, Assembly.

Systems and Softwares: Apache Spark, Naiad, Mininet, MATLAB, MATHCAD

Selected Honors and Awards

- Recipient of Google Feats of Engineering Award. *2018*
- Recipient of 2-year Stanford Graduate Fellowship (Cisco Systems Fellow). *2013-2015*
- Ranked 15th (/135) in the EE Qualifying Examination, Stanford University. *2013*
- Ranked 2nd in the EE Depart., Comm. branch, Sharif University of Technology. *Class of 2007-2011*
- Bronze medalist of Iran National Mathematics Olympiad. *2006*
- Second winner of the "Bests Undergraduate Thesis Award", Sharif University of Technology. *2011*
- Ranked 46th in university entrance exam among more than 300,000 students. *2007*

Extracurricular Activities

Social Ballroom Dancing, Playing Tennis, Golfing, Swimming, Travelling.