Omid Mashayekhi

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Education

Stanford University   Stanford, CA
  Ph.D. in Electrical Engineering, Cloud Computing   Winter 2013 - Spring 2017
  Ph.D. Minor in Computer Science, Systems Track   Winter 2013 - Spring 2017
  M.Sc. in Electrical Engineering, Networking Systems   Fall 2011 - Spring 2013

Sharif University of Technology   Tehran, Iran
  B.Sc. in Electrical Engineering, Communication Systems   Fall 2007 - Spring 2011

Experience

Software Engineer at Google   Mountain View, CA
  NetInfra team developing distributed software systems for networking applications.   Summer 2017 - Present

Software Engineer Intern at bebop Inc.   Los Altos, CA
  Back-end engineer working on developing a low latency data store.   Summer 2015

RA at Stanford Information Networks Group (SING)   Stanford University
  Diverse projects from cloud computing and graphical simulations to full duplex radio.   Fall 2011 - Spring 2017

Software Engineer Intern at Cisco Systems   San Jose, CA
  Software engineer at Wireless Networking Business Unit (WNBU).   Summer 2012

Teaching Experience   Stanford University
  Course Assistant in CS344C, Cloud Simulation Systems.   Spring 2013

RA at Advanced Communications Research Institute (ACRI)   Sharif University
  Research in power estimation and coding techniques for CDMA systems   Spring 2009 - Summer 2011

Selected Projects

Nimbus: cloud computing framework for fast data analytics and HPC applications. (nimbus.stanford.edu).

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

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 2-year **Stanford Graduate Fellowship** (Cisco Systems Fellow)   *2013-2015*
- **Ranked 15th**(/135) in the EE Qualifying Examination, Stanford University.   *Winter 2013*
- **Ranked 2nd** in the EE Depart., Comm. branch, Sharif University of Technology.   *Class 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*
- Member of the "Iranian National Elite Foundation".   *2007-2011*

Extracurricular Activities

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