

Abbas Razaghpanah

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Research Interests Computer Networks, Network Measurement, Internet Interference

Education

- PhD in Computer Science 2013 - present
Stony Brook University (SUNY Stony Brook)
Co-Advisers: Dr. Phillipa Gill, Dr. Narseo Vallina-Rodriguez
 - M.Sc. in Computer Science 2013 - 2015
Stony Brook University (SUNY Stony Brook)
Adviser: Dr. Phillipa Gill
 - B.Sc. in Computer Science 2008 - 2013
Amirkabir University of Technology (Tehran Polytechnic)
 - Diploma in Mathematics and Physics Discipline 2004 - 2008
Allame Helli High School, Tehran, Iran
- As an honors student.** A branch of the National Organization for Development of Exceptional Talents (NODET).

Awards

- Awarded Information Controls Fellowship offered by OTF and the Citizen Lab Nov. 2014
- Best poster award in Stony Brook Technology Day poster competition Sep. 2014
- Runner up in the ACM Student Research Competition at SIGCOMM 2014 Aug. 2014

Publications

Journal Publications

- “Meddle: Enabling Transparency and Control for Mobile Internet Traffic”
Ashwin Rao, Arash Molavi Kakhki, Abbas Razaghpanah, Anke Li, David Choffnes, Arnaud Legout, Alan Mislove, and Phillipa Gill
Journal of Technology Science (JoTS). Oct. 2015

Conference Papers

- “Identifying Traffic Differentiation in Mobile Networks”
Arash Molavi Kakhki, Abbas Razaghpanah, Hyungjoon Koo, Anke Li, Rajeshkumar Golani, David Choffnes, Phillipa Gill, and Alan Mislove
Internet Measurement Conference (IMC). Tokyo, Japan. Oct. 2015 (Accept rate 26%)
- “Internet Outages, the Eyewitness Accounts: Analysis of the Outages Mailing List”
Ritwik Banerjee, Abbas Razaghpanah, Luis Chiang, Akassh Mishra, Vyas Sekar, Yejin Choi, and Phillipa Gill
In Proc. of the *Passive and Active Measurement Conference (PAM)*. New York, New York. Mar. 2015 (Accept rate 27%)

Posters

- “A client-side analysis of TLS usage in mobile apps”
Abbas Razaghpanah, Narseo Vallina-Rodriguez, and Phillipa Gill
In *USENIX Security Poster Session*. Austin, Texas. Aug. 2016
- “Haystack: *In Situ* Mobile Traffic Analysis in User Space”
Abbas Razaghpanah, Narseo Vallina-Rodriguez, Srikanth Sundaresan, Christian Kreibich, Phillipa Gill, Mark Allman, and Vern Paxson
In *ACM HotMobile Poster & Demo Session*. St. Augustine, Florida. Feb. 2016

- “Identifying Traffic Differentiation on Cellular Data Networks”
Arash Molavi Kakhki, Abbas Razaghpanah, Rajesh Golani, David Choffnes, Phillipa Gill, and Alan Mislove
In *ACM SIGCOMM Poster & Demo Session*. Chicago, Illinois. *Aug. 2014*
Runner up in the *ACM Student Research Competition at SIGCOMM 2014*

Technical Reports

- “Exploring the Design Space of Longitudinal Censorship Measurement Platforms” *Jun. 2016*
Abbas Razaghpanah, Anke Li, Arturo Filastò, Rishab Nithyanand, Vasilis Ververis, Will Scott, and Phillipa Gill
- “Haystack: In Situ Mobile Traffic Analysis in User Space” *Oct. 2015*
Abbas Razaghpanah, Narseo Vallina-Rodriguez, Srikanth Sundaresan, Christian Kreibich, Phillipa Gill, Mark Allman, and Vern Paxson

Projects

- **In Situ Mobile Privacy Leaks Detection and Measurement Platform**

As part of my work as a graduate student intern at ICSI, I helped develop a mobile application that enables detection of private information exfiltration by applications without requiring root access by implementing a VPN interface on the device. I developed the module responsible for intercepting encrypted communication on the device (TLS proxy). The mobile application, called “Haystack”, is available to download from the Google Play Store.

- **Information Controls Lab (ICLab)**

ICLab is a platform designed for repeatable measurements to detect and analyze information controls and Internet interference at scale. It’s a joint work between The Citizen Lab, Stony Brook University, and Princeton University.

I have been working on developing and deploying the open-source ICLab software platform called Centinel. The software platform supports running custom measurements across any collection of vantage points across the globe and analyzing measurement results using the ICLab data management platform (DMP).

- **Mobile Middlebox Detection**

A joint effort between Northeastern University and Stony Brook University, the mobile middlebox detection project aims at detecting interference introduced by middleboxes in the mobile environment by running active measurements from the edge. These measurements include detecting traffic differentiation for different applications using a novel record-replay method. The differentiation detection application is available to download from the Google Play Store.

Professional Experience

- **Research Intern**

International Computer Science Institute (ICSI) at UC Berkeley *Summer 2015*
I worked on developing a mobile privacy measurement application with Narseo Vallina-Rodriguez, Srikanth Sundaresan, and Christian Kreibich under the supervision of Vern Paxson.

- **Seasonal OTF Research Fellow**

The Citizen Lab at University of Toronto *Spring 2015*
Worked on ICLab, a platform to measure Internet interference under supervision of Ronald Dibert.

- **Intern Programmer**, Fan Afzar Sharif, Tehran, Iran *Summer 2012*

Developers of Iran’s highly recognized game *Garshasp* Game engine developer and maintainer.

Teaching Experience

- **Teacher’s Assistant**, Stony Brook University *Feb. 2014 - May 2014*

Principles of Programming Languages presented by Prof. Yanhong Annie Liu

- **Teacher’s Assistant**, Stony Brook University *Sep. 2013 - Dec. 2014*

- Database Design and Practice presented by Prof. Robert Kelly
 • **Teacher's Assistant**, Stony Brook University *Sep. 2013 - Dec. 2014*
 Introduction to Computer Organization presented by Prof. Robert Kelly
 • **Teacher's Assistant**, Amirkabir University of Technology *Sep. 2012 - Jun. 2013*
 Introduction to C Programming, presented by Mr. Lavassani.
 • **Tutor**, Amirkabir University of Technology *Sep. 2012 - Jun. 2013*
 Introduction to Linux Operating System.
 • **Teacher**, Allame Helli II Middle School, Tehran, Iran *Sep. 2012 - Jun. 2013*
 A branch of the National Organization for Development of Exceptional Talents (NODET). Computer programming basics in Pascal. Introduction to Artificial Intelligence teacher.
 • **Teacher**, Allame Helli IV High School, Tehran, Iran *Sep. 2011 - Apr. 2012*
 A branch of the National Organization for Development of Exceptional Talents (NODET). Computer programming basics in C++.
 • **Teacher**, AbouAli Sina High School, Tehran, Iran *Sep. 2011 - March 2012*
 Computer programming and AI development for 2D soccer simulation agents.
 • **Teacher's Assistant**, Amirkabir University of Technology *Feb. 2011 - Jul. 2011*
 Introduction to Database Systems and Analysis, presented by Professor Parham Moradi.
 • **Teacher**, Allame Helli High School, Tehran, Iran *Sep. 2010 - Jun. 2011*
 Part of the National Organization for Development of Exceptional Talents (NODET). Computer programming basics in C++.
 • **Tutor**, Amirkabir University of Technology *Fall 2009 - Spring 2010*
 AI development for 2D soccer simulation agents, tactics and strategies.

Service

- **Graduate Student Council President**
 Computer Science Graduate Student Council at Stony Brook *Jan. 2013 - present*
- **Field Experts' Committee Member, Workshop Tutor and Programmer**
 Sharif University's APLAB (Algorithms and Problem Solving Laboratory) *Sep. 2012*
 Designed and programmed a game for the network workshop based on efficient communication for highschool students. Helped with organizing tasks and tutored at automata and algorithms workshops.
- **Technical Committee Member**, Sharif Cup 2012, Sharif University *Sep. 2012*
 Referee and member of technical and organization committee for 2D soccer simulation league.
- **Technical Committee Member**, AUT Cup 2009, Amirkabir University *Oct. 2009*
 Referee and member of technical and organization committee for 2D soccer simulation league.