

Masoud Valafar
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HIGHLIGHTS

- A hardworking and organized problem solver and analytical thinker with documentation and communication skills. Innovative and conceptual self-starter who thrives on challenges and sees the big picture and works efficiently with others to attain or exceed objectives.
- A fast learner who is capable of easily adapting to new situations.
- Proficient in programming and scripting languages including Python, C, and Java.
- Familiar with cloud and grid environments and experienced in working with UNIX/Linux system.

EDUCATION

M.Sc. – Computer Science **Sep/2007- Present**
University of Oregon, Oregon, USA
Focus of research: System and Network Security
GPA: 3.88/4.00

B. Sc. – Information Technologies **Sep/2001-May/2007**
Sharif University of Technology, Tehran, Iran
GPA: 15.90/20.00

PROFESSIONAL EXPERIENCES

Research Assistant, OSIRIS, Eugene, OR **Jan/2010-Present**

- Designed and implemented a secure provenance system for the cloud infrastructure.
- Explored and studied virtualization and discovered new vulnerabilities which allowed co-residency detection and creation of side channels.

Research Assistant, MIRAGE RESEARCH GROUP, Eugene, OR **Sep/2007-December/2010**

- Designed and implemented a technique to measure and characterize connectivity structure and user activity in large-scale and dynamic networked systems – *early results of this project brought us \$355,000 NSF research grant (Grant No. 0917381).*
- Developed an experimentally efficient distributed web crawler in Python (under UNIX) for collecting data from social network web servers such as Twitter and LiveJournal. It easily launches on PlanetLab servers to crawl the target system.

Research Intern, TECHNICOLOR (THOSMON) RESEARCH LAB, Princeton, NJ **Jun/2009-Sep/2009**

- Performed a survey study on privacy and security of users and personal information leakage in existing online social networks such as Facebook, Twitter, and MySpace.

Junior Researcher, Digital Media Lab, Tehran, Iran **Sep/2006-May/2007**

- Performed a survey on application of Game Theory on ad hoc networks. I used Game Theoretical concepts and techniques in my thesis to extend proposed models for ad hoc networks.

Teaching Assistant, UNIVERSITY OF OREGON, Eugene, OR **Sep/2007-Jun/2009**

- Assisted in “Information Processing”, “Web Programming”, and “Multimedia and Web Design” courses.
- My responsibilities were conducting lab sessions, designing and grading problem sets, and supervising problem solving classes.

AWARDS AND HONORS

- Ranked 1st in the 13th and 14th Annual programming contests in University of Oregon, 2008 & 2009.
- The 2nd prize winner in the annual graduate poster contest, University of Oregon, 2010.
- Graduate Research Fellowship University of Oregon, 2009-Present.
- Honorable Graduate Teaching Fellowship recognition, 2008.
- Graduate Teaching Fellowship, University of Oregon, 2007-2009.

RESEARCH ACTIVITIES

Publications

- R. Rejaie, M. Torkjazi, M. Valafar, and W. Willinger, "Sizing-up Online Social Networks", *IEEE Network Special Issue on Online Social Networks*, Vol. 24, No. 5, September/October 2010.
- W. Willinger, R. Rejaie, M. Torkjazi, M. Valafar, and M. Maggioni, "Research on Online Social Networks: Time to Face the Real Challenges", *In Proceedings of the 2nd Workshop on Hot Topics in Measurement and Modeling of Computer Systems (HotMetrics)*, Seattle, USA, June 2009.
- M. Valafar, R. Rejaie, and W. Willinger, "Beyond Friendship Graph: A Study of User Interaction in Flickr", *In Proceedings of the 2nd Workshop on Online Social Networks (WOSN)*, Barcelona, Spain, August 2009.
- A. Bates, M. Valafar and K. Butler, "Detecting Cloud Co-Residency with Network Flow Watermarking", Under submission to IEEE Symposium on Security and Privacy 2012.
- M. Valafar, A. Bates and K. Butler, "Provenance-Based Access Control for Cloud Environments", Under submission to USENIX Annual Technical Conference 2012

Presentation

- Gangadharbatla, H. and Valafar, M. (2011). Tweet This: A Preliminary Look at How Information Travels on Twitter, Presented at 20th Asian Media Information and Communication Center Annual Conference, Taj Krishna Hotel, Hyderabad, India, June 24-27.
- Masoud Valafar and Kevin Butler, Secure Provenance System for Cloud Storage, Poster presentation in the IEEE Symposium on Security and Privacy 2011.

External Reviewer

- The 3rd Workshop on Online Social Networks (WOSN) 2010.
- IEEE Network Special Issue on Online Social Networks 2010.
- International World Wide Web Conference (WWW) 2010.
- IEEE INFOCOM 2009, 2011.

Skills

- Experienced in programming with Java, C, and Python programming languages and familiar with web programming languages such as JavaScript and PHP
- Experienced in working with database system including MySQL, SQLite, and PostgreSQL
- Experienced in programming under Linux/Unix and Windows environments

References

Available upon request.