ALEJANDRO PROANO
Department of Electrical and Computer Engineering
The University of Arizona
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EDUCATION

The University of Arizona, December 2013
PhD., Electrical and Computer Engineering
Cumulative GPA: 3.8
Selected Courses: Computer Networks, Advance Computer Networks, Wireless Protocols, Cyber Security, Fundamentals of Optimization, Linear Programming, and Algorithms, Graphs and Networks.
Dissertation: Traffic Normalization Techniques for Perfect Contextual Information Privacy in Wireless Networks

The University of Arizona, May 2010
MS., Electrical and Computer Engineering
Cumulative GPA: 3.67
Thesis: Selective Jamming Attacks in Wireless Networks

Universidad San Francisco de Quito, December 2007
BS., Electrical Engineering
Cumulative GPA: 3.8
Summa Cum Laude

Universidad San Francisco de Quito, December 2007
BS., Mathematics
Cumulative GPA: 3.8
Summa Cum Laude

EXPERIENCE

Research Assistance, Electrical and Computer Engineering Department, The University of Arizona, 2009-Present.
- Responsible of conducting research in areas of security and privacy of wireless networks.
- Perform analysis and mitigation of security vulnerabilities in different networks such as ad-hoc wireless networks, wireless sensor networks and multi-channel wireless networks.
- Develop code to emulate the behavior of different kind of protocols in networks such as 802.11a and WSNs using MATLAB and OPNET Modeler

Wireless Networks Project, Electrical and Computer Engineering Department, The University of Arizona, 2010.
- Studied different routing techniques of mobile ad-hoc and multi-channel wireless networks. It includes the code development of the PHY, MAC and routing layers of nodes in OPNET Modeler.
- Compared two different metrics in the AODV algorithms for routing that take into consideration the multi-channel nature of the network. Showed the impact of mobility in such metrics.

Lecturer, Mathematics Department, Universidad San Francisco de Quito, Quito, Ecuador, 1/2008- 8/2008.
- Taught Basic Mathematics, Exercises of Calculus I and II, Statistics Lab, and Exercises of Differential Equations.
- Responsible of preparing class, and grading assignments and exams.

Intern, Computer Resources Department, Compuequip DOS, Quito, Ecuador, 7/2007-8/2007.
- Responsible of re-wiring the internal network, management and assistance of the local network.

SKILLS

Technical: C/C++, Python, OPNET Modeler, MATLAB, Latex, OpenOffice and MS Office 2010/2011, Linux (Fedora and Ubuntu), UNIX, MAC OS and Windows 2000/XP/Vista/7

Professional: interpersonal skills, customer service, written and verbal communication, leadership, teamwork, logical and critical analysis, project management.

AWARDS

The University of Arizona, 2008
College of Engineering Scholar
Scholarship for graduate studies

Universidad San Francisco de Quito, 2003
J. C. Maxwell Scholar
Scholarship for undergraduate studies
Tucson, AZ

PUBLICATIONS

A. Proano and L. Lazos, Perfect Contextual Information Privacy in WSNs under Colluding Eavesdroppers (Short Paper), Accepted to ACM Conference on Security and Privacy in Wireless and Mobile Networks (WIsec), 2013

A. Proano and L. Lazos, Traffic Normalization Techniques for Private Communications in WSNs, Submitted to Pervasive and Mobile Computing (PMC) Journal (Elsevier), Dec. 2012

A. Proano and L. Lazos, Hiding Contextual Information in WSNs, IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM), 2012

A. Proano and L. Lazos, Packet-Hiding Methods for Preventing Selective Jamming Attacks, IEEE Transactions on Dependable and Secure Computing, Jan. 2012

A. Proano and L. Lazos, Selective Jamming Attacks in Wireless Networks, IEEE International Conference on Communications (ICC '10), May. 2010.