Jose Antonio Gomez Gaona

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EDUCATION

University of South Carolina, Columbia *January 2019 - Present*
Doctor of Philosophy (Ph.D.)
Department of Computer Science and Engineering

Catholic University, Asuncion *March 2010 - March 2017*
Electronic Engineer (Eng)
Department of Electronics and Computer Science

ACADEMIC EXPERIENCE

Research Assistant *January 2019 - Present*
Department of Computer Science and Engineering
University of South Carolina

Teaching Assistant *March 2014 - May 2017*
Department of Electronics and Computer Science
Catholic University

WORK EXPERIENCE

Particle Manipulation Employing Mechanical Waves *January 2016 - March 2017*
Researcher

· This project explored the interaction between acoustical waves and particles.This project was aimed to understand how acoustical fields interact with polystyrene particles in the air. A prototype was developed in order to manipulate particles in the air, modulating the phase of a stationary field.

TECHNICAL SKILLS

Programming/Scripting Languages: C, C++, Python, Shell Scripting, UNIX, VMWare, Matlab, System Verilog, VHDL.

Technologies: Programmable Data Planes, P4, SDN, OVS, Cryptography, Blockchain, IoT Security, iPerf, perfSONAR.

TEACHING EXPERIENCE

Digital Signal Processing
This course is based on the methods which consist in sampling and processing continuous signals using a microcontroller. For the achievement of that goal, I work as the assistant of the main professor, giving practical classes and laboratories.

Digital Control Systems
This course is focused to gain insight into the behavior of the classical and the modern digital control system. It is based on the implementation of the control systems in a microcontroller architecture.

Digital Systems 1
This course explains the basic principles of combinational logic circuits, and provides the student with comprehensive information about synchronous and asynchronous circuits.

Digital Systems 2
This course explains the basic principles in the process of developing a specific use processor and a general use processor aimed to implement prototypes in VHDL language.

PAPERS IN REFEREED CONFERENCES AND JOURNALS

1. Kfoury, E.F., **Jose Gomez**, Jorge Crichigno, and Elias Bou-Harb. An Emulation-based Evaluation of TCP BBRv2 Alpha for Wired Broadband. *Computer Communications*, 2020.
2. Kfoury, E.F., David Khoury, Ali AlSabeh, **Jose Gomez**, Jorge Crichigno, and Elias Bou-Harb. A Blockchain-based Method for Decentralizing the ACME Protocol to Enhance Trust in PKI. *In IEEE 43rd International Conference on Telecommunications and Signal Processing (TSP 2020)*. IEEE, 2020.
3. **Jose Gomez**, Kfoury, E.F., Jorge Crichigno, Elias Bou-Harb, and Gautam Srivastava. A Performance Evaluation of TCP BBRv2 Alpha. In *IEEE 43rd International Conference on Telecommunications and Signal Processing (TSP 2020)*. IEEE, 2020
4. J. Crichigno, E. Bou-Harb, Kfoury, E.F, **Gomez J.**, and Magnino A. Training Engineering Students and IT Professionals on High-throughput Networking and Cybersecurity using a Virtual Environment. In *Annual Conference of American Society for Engineering Education (ASEE)*, 2020.
5. Kfoury, E.F., **J. Gomez**, J. Crichigno, E. Bou-Harb, and D. Khoury. Decentralized Distribution of PCP Mappings Over Blockchain for End-to-End Secure Direct Communications. *IEEE Access*, 7:110159110173, 2019