

Jose R. Santos

- Lab Director, Senior Instructor. Department of Computer Science, Network Engineering Professional Master's Program (NetEng). University of Colorado Boulder.

Academic Background

M.S. 2003. Interdisciplinary Telecommunications Program. University of Colorado. Boulder,

Industry Certifications

Cisco Systems:

- Cisco Certified Network Associate (2003).
- Cisco Certified Network Professional (2012, 2015, 2018).
- Cisco Certified Internet Professional: QoS (2009).
- JNCIA (2014)

Academic Teaching/Mentoring Experience

- Fall 2005 - Today. Instructor. "Introduction to Enterprise Networks", "Data Center Networks", and "Service Provider Networks." Master's level Coursework for hands on training on networking technologies (Network Resiliency, Capacity, Design)
- Fall 2015 – 2020. Instructor. Network Security for CORE and HUNT Audiences. SecureSet Academy Denver (Network and Protocol Operation and their Exploits)

Work Experience and Research Project Participation (University of Colorado)

Fall 2003 - Today: Lab Director.

- Responsible for day-to-day operations of networking research lab at NetEng including the maintenance, setup and reservation of laboratory assets to serve 10+ graduate level courses.
- Research and development of 40+ technical training laboratories on data networking now part of graduate-level courses.
- Mentoring and supervision of 50+ student research projects on areas of Data networking, VoIP, multimedia, SmartGrid and network security.
- Development of Lab virtualization environments to support distance education, and cloud computing services at the service of graduate education.
- Responsible for corporate outreach and donation solicitations for lab facilities (more than \$850K since 2014)

Industry Work / Consulting

Network / Information Security Consultant

- Part time consultant for expert network architecture/upgrade and information security projects (vulnerability assessment / social engineering / security hardware deployment), for clientele in 1B+ market value industry.
- Part Time consultant in design and implementation of control systems networks for critical infrastructure.
- Technical support for hybrid cloud/local network implementations in support of traffic control systems.

Research/Work in Progress

- Continuous exploration of media streaming technologies, cloud networking, lab virtualization and materials to assist remote education.
- Previous work on IEEE 1588 / PTP based distribution of time and frequency over multi-transport solutions (LAN/WAN/MOE/IP)
- Currently studying integration of transport and application layer into network load balancing and traffic engineering.