VICTOR SOTO

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HIGHLIGHTS

- MASc. in Electrical and Computer Engineering from University of Ottawa
- 2+ years as part of the **Create Transit Network/NSERC** program
- Strong knowledge of **Linux** based systems, **Python** and **C/C++.**
- In-depth knowledge of **Communication Protocols** for **Vehicular Edge Computing** systems and **Vehicular Networks**
- Working experience with **Data Science** libraries for data analysis and visualization libraries in Python – **NumPy, SciPy,** and **Matplotlib**
- Working knowledge of **OOD/OOP, Data Structures, Algorithms** and **Computer Networks**
- Excellent problem-solving, troubleshooting, and debugging skills
- Outstanding writing skills, adaptable to changing priorities, and a team player.

SKILL SET

- **Programming Languages:** Python, C/C++, Java, Bash (Command)
- **Operating System:** Linux, Windows
- **Development Tools:** Eclipse, PyCharm, Visual Studio, gcc, g++, Selenium
- **Version Control Tools:** Git, SVN
- **Network Protocols:** TCP/IP, UDP, HTTPS, MPLS, VoIP, SIP, DSRC, WSM
- **Network Management:** Wireshark
- **Data Science Libraries:** NumPy, SciPy
- **Virtualization Technologies:** Oracle Virtual Box, VMware
- **Web/Front End Libraries:** HTML, CSS, JavaScript, jQuery, Bootstrap, React, Redux
- **Laboratory:** Oscilloscope, Spectrum Analyzer, Function Generator

EDUCATION

- **MASc. Electrical and Computer Engineering**
  University of Ottawa, Canada 2016-2018
  Relevant courses: Distributed Systems Engineering, Resource Management on Distributed Systems, Intelligent Transportation Systems, Discrete-event Modeling & Simulation
  Thesis: "*Mobility-Oriented Data Retrieval Protocol for Vehicular Edge Computing*" (http://hdl.handle.net/10393/38836)

- **BASc. Electronics and Telecommunications Engineering**
  University of Guadalajara, Mexico 2009-2013
  Relevant courses: Computer Networks, Protocols & Standards, High-frequency Electronics, Semiconductor Theory, Antennas, Digital Systems, Audio & Video Systems
  Thesis: "*Design and Implementation of a 2.45GHz Wearable Antenna*"

PROFESSIONAL DEVELOPMENT

- **MITACS Professional Workshops** Ottawa, ON
  - Time Management (6 hours) Jan 2017
  - Practical Tips on Growing Your Network (2 hours) Jan 2017
  - Foundations of Project Management I (16 hours) Feb 2017
  - Skills of Communication (8 hours) Feb 2017
  - Clear Writing (8 hours) Mar 2017

PROFESSIONAL EXPERIENCE

- **RESEARCH ASSISTANT, PARADISE LAB, University of Ottawa**
  Ottawa, ON Jul 2016 – Dec 2018
  Technologies: Linux, Python, C/C++, OMNET++, SUMO, VEINS Framework, HTML, gcc, g++
  - Researched, designed, and developed a collection of communication and routing protocols for vehicular networks (V2V, V2I, V2X) as part of the NSERC DIVA Strategic Research Network and NSERC CREATE TRANSIT Program.
  - Implemented parsing algorithms for Data Analysis using Python Data Sciences libraries.

  Publications:
  - V. Soto, R. E. De Grande, and A. Boukerche, "Repro: Time-constrained data retrieval for edge offloading in vehicular clouds" in Proceedings of the 14th ACM Symposium on Performance Evaluation of Wireless Ad-Hoc, Sensor, & Ubiquitous Networks, 2017. (https://dl.acm.org/citation.cfm?id=3134834)
  - A. Boukerche and V. Soto, "Mobility-Oriented Retrieval Protocol for Computation Offloading in VEC" (submitted), IEEE Intelligent Transportation Systems Transactions, 2019.

- **TEACHING ASSISTANT, University of Ottawa**
  Ottawa, ON Jan 2017 – Dec 2017
  Technologies: MATLAB, Python, Arduino, Raspberry Pi
  Electrical Engineering Design Project: Part I & II
  - Conducted Practical Labs for both subjects.
  - Assisted and guided students through the design, development and testing of an innovative electrical design project.
  - Provided support on creating a business model and filling a patent application.
  - Evaluated students and provided feedback on technical issues and writing skills.

- **RADIOLOGY & IMAGING SERVICE ENGINEER, EYMSA**
  Guadalajara, Mexico Aug 2014 – Dec 2015
  Technologies: TCP/IP, DNS, Oscilloscope,
  - Installed, configured and provided maintenance of medical equipment and LAN/WLAN hardware.
  - Guided training sessions for customers and technicians.
  - Acted as a technical expert in the medical equipment acquisition committees at public and private hospitals.
  - Managed the implementation of new technology in alignment with various clinical services requirements.

- **SERVICE ENGINEER, Medical Parts MX**
  Guadalajara, Mexico Aug 2013 – Jul 2014
  Technologies: Function Generator, Assembly, Javascript, HTML, CSS,
  - Reviewed and prepared of medical equipment maintenance contract.
  - Installed and provided maintenance of medical equipment.
  - Developed and maintained a product and services Web Site using JavaScript, HTML, CSS.
  - Developed plans for the adaption, deployment, upgrade or integration of medical technologies and associated processes
  - Supervised Biomedical Engineering interns.