VICTOR SOTO

Ottawa, ON K1H8J6 | 613-255-5164
vsoto26@gmail.com | http://vsotog.github.io

HIGHLIGHTS

- MASc. in Electrical and Computer Engineering from University of Ottawa
- **Software Engineer** with experience in **Cloud Infrastructure**.
- Strong knowledge of **Linux** based systems, **Java, Python** and **C/C++.**
- 2+ years as part of the **Create Transit Network/NSERC** program
- In-depth knowledge of **Communication Protocols** for **Vehicular Edge Computing** systems and **Vehicular Networks**
- Designed and developed application components in an Agile/Scrum environment
- 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:** Java, Python, C/C++, Bash (Script)
- **Operating System:** Linux, Windows
- **Cloud platforms:** Microsoft Azure
- **Automation/Build** Kubernetes, Docker, Terraform, Azure DevOps
- **Development Tools:** Visual Studio, Eclipse, PyCharm,, gcc, g++, Selenium
- **Version Control Tools:** Git
- **Network Protocols:** TCP/IP, UDP, HTTPS, VoIP, SIP, DSRC, WSM, WebRTC
- **Network Management:** Wireshark
- **Data Science Libraries:** NumPy, SciPy, Matplotlib
- **Virtualization Technologies:** Oracle Virtual Box, VMware, Hyper-V
- **Web/Front End Libraries:** HTML, CSS, JavaScript, jQuery, Bootstrap, React, Redux
- **SDLC:** Agile, Scrum
- **DAST Tools**: Burpsuite
- **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
  - Foundations of Project Management I (16 hours)   Feb 2017
  - Skills of Communication (8 hours)   Feb 2017
  - Clear Writing (8 hours)   Mar 2017

PROFESSIONAL EXPERIENCE

- **SOFTWARE ENGINEER, Motorola Solutions**

  Gatineau, QC   Jun 2019 – Current

  Technologies: Microsoft Azure, Kubernetes, Azure Devops, Docker, Terraform, Linux, Java, SIP, GStreamer, Kurento Media Server, WebRTC
  - Researched, designed, and developed an Emergency Call Handling Suite.
  - Integration of end to end elements (front-end and back-end)
  - Proficient in multiple programming languages, frameworks, domains, and tools such as: Java, Quarkus Framework, JSON, REST, API.
  - Built cloud infrastructure using Infrastructure as Code/Automation tools such as: Microsoft Azure/Azure DevOps, Kubernetes, Docker, Terraform.
  - Setup full CI/CD pipelines so that each commit a developer makes will go through standard process of software life cycle and gets tested well enough before it can make it to the production.

- **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, "An Efficient Mobility-Oriented Retrieval Protocol for Computation Offloading in Vehicular Edge Multi-Access Network" (submitted), IEEE Transactions on Intelligent Transportation Systems, 2020.

- **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.

- **ELECTRICAL 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.

- **JUNIOR ELECTRICAL 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.