Devang Sharma

Software Engineer

ADDRESS
Vancouver, Canada

- devangshrma.github.io
- devangsrma@gmail.com
- in devangshrma
- devangshrma

ABOUT

A graduate student at UVic with over 3 years of extensive software engineering experience in building simulation and automation tools in C and Python for end-to-end testing of LTE virtual network functions (VNF). Skilled in Linux, wireless protocols, and stacks with introductory knowledge of IoT, Cloudification and CI/CD pipeline setup. Result-oriented and a dedicated team player having a strong analytical, problem-solving, presentation, and communication skills, with the ability to manage multiple tasks and work in a dynamic environment.

EDUCATION

University of Victoria, BC, Canada — (September 2019 - April 2021)
Master of Engineering Telecommunications and Information Security

Centre for Development of Advanced Computing (C-DAC), India — (August 2016 - February 2017)
Post Graduate Diploma Embedded Systems Design

Gujarat Technological University, India — (August 2011 - August 2015)
Bachelor of Engineering Electronics and Communication

PROFESSIONAL EXPERIENCE

Sierra Wireless, Richmond, Canada — (September 2020 - April 2021)
Software Developer in Test, Co-op

Deliver timely software validation results and clearly communicate with the developers to meet the build quality and release deadlines.

- Streamline integration test suite (**Jenkins integration, Enhanced automation and reporting etc...**)
- Actively analyze the field issues reported by Customers and validate respective Jira.
- Upgraded **IPsec VPN** and **Firewall** automation suite from **Python 2** to **Python 3.8.5** followed by code refactoring.
- Expedited active bug tracking in **JIRA** by at least 40% by implementing automated log analysis in Python.

Definition Networks, India — (February 2017 - April 2019)
Software Engineer

Built tools for automated testing of UE MONTE and Non-IP Data Delivery(NIDD) features of Service Capability Exposure Function – A **LTE control plane Virtual Network Function (NFV)** introduced by **3GPP** in **Release 13**.

- **Led** the complete test life cycle, including the test strategy design and review with the product team as a part of **Agile** Software Development.
- Designed scalable simulators in **Python** for various Network Elements in LTE EPC namely - **HSS, MME**, and **PCRF**, and southbound interfaces such as S6t, T6a, and Rx, using i1.dk Diameter(AAA) protocol stack.
- Simulated a **3GPP Release 15** compliant Application Server with support for REST APIs and T8 interface, using the Python **JSON** library and **Tornado web framework**.
- Co-ordinated with the developers for learning **C** core dump file analysis using **GDB**.
- Developed NFV statistics validation framework using Google's protobuf Python APIs.
- Engaged in introductory platform-related activities such as build management, bug reporting and webhook integration between Jenkins and Slack, OpenStack heat template generation and local repository management using Aptly.

Wipro Technologies, India — (September 2015 - August 2016)
Associate Consultant

Ensured Identity and Access Management (IAM) service availability and enhancements for the Cyber Risk and Services team.

- Involved in the incident, problem, and change management for IAM Platform Services of one of the US-based electronic retail supply chains.
- Administered the Oracle Identity Manager user life cycle management and provisioning activities.
- Automated weekly status report generation using Python scripts for data fetching from the ServiceNow ticketing platform.

Rogers Communications, Victoria, Canada — (September 2019 - August 2020)
Retail Sales Associate

Part-time sales associate accountable for professional interactions with customers and providing a tailored solution based on requirements.

- Generated the highest ARPU among other sales associates and achieved monthly sales targets while working in a high-pressure environment.
- Went above and beyond to meet the customer needs and make sure the customers understand the product well.
- Occasionally educated the customers and my team about the recent trends in Telco viz. LTE & 5G.

PROJECTS

Python Network Analyzer for Wireshark Captures — (May 2020 - August 2020)
https://github.com/thespurgeo/ECE572Project

- Used Oracle VirtualBox for simulating a network consisting of three victim servers, a SEED Ubuntu machine, and a KALI attack machine. Captured three network traffic scenarios containing different types and amounts of malicious traffic, using Wireshark.
- Utilized NumPy, Pandas and Matplotlib for carrying out data analysis on the captured packet dump.

Crypto Blackjack — (May 2020 - August 2020)
https://github.com/devangshrma/CryptoBlackjack

Showcased an approach to Blockchain-based gambling can enable fair play as well as provide enhanced security.

- In a team of three implemented the game of multiplayer Blackjack using Solidity programming language and Remix IDE.
- Introduced fair randomness using the Keccak-256 algorithm to generate a random number later used for deck shuffling .