Shristi Pradhan

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LinkedIn: linkedin.com/in/shristipradhan   **GitHub:** github.com/shristi-pradhan

Technical Skills

Proficient: C, C++, Python, Linux, Git, ThreadX RTOS, FreeRTOS, Jira, Confluence
Exposure: MATLAB, docker, Java

Professional Experience

Sierra Wireless, A Semtech Company   Vancouver, BC
Senior Software Engineer | Internet of Things   Feb 2018 - Present

- Built cellular mesh network using Python, Raspberry Pi, cellular and Wi-SUN in order to demo proof of concept to show advantages of both cellular and mesh in a self organizing network in multiple user stories.
- Demonstrated leadership by serving as a scrum master for a team of 10 engineers steering the delivery of Legato release for Linux modules with new IoTKeystore features to enhance security with secure data migration.
- Developed edge application framework Legato features by providing abstraction layers using C, C++ which resulted in reduction of 60% time for 100+ companies globally in building IoT applications.
- Implemented device credential migration from modem to IoTKeystore enhancing security for client features.
- Designed and developed core features in C operating on ThreadX Real Time Operating System (RTOS) to enable platform services to enable networking, cellular and data connection that lowers total cost of ownership by 40%.
- Optimized device driver code by developing kernel module dependency resolver feature saving time by 50%.
- Created backend for new build and development tools using C++ integrated into Visual Studio Code IDE Legato plugin resulting in automating of definition files saving IoT development time from 2-3 hours to 2-3 minutes.

HCL Technologies   Vancouver, BC
Senior Software Engineer | Intelligent Edge   May 2017 - Jan 2018

- Enhanced configuration management and error handling to support database synchronization between controller and remote cards on Calix E9 edge system using C, C++ in Linux OS resulting in 50% less time in problem solving.

Ericsson   Vancouver, BC
Software Developer |PaaS: IP Router   Jul 2014 - Apr 2017

- Designed and developed software components for Platform Administration software that resides between the applications and device drivers to bring up standalone system of Ericsson IP Router 8801 resulting in a new router platform that provides total cost of ownership saving of 65%.
- Contributed towards Stacking design for IP router platform for configuration management using C, C++ in Linux OS providing flexibility of configuring dual routers together with return of investment level of 335%.
- Componentized chassis management and platform administration software modules to improve performance of IP router and achieve end to end chassis management (CLI to device drivers).

BlackBerry   Waterloo, ON
Automation Test Development Engineer Intern | WLAN-LTE   May - Aug 2013

- Designed automation framework in Python by integrating software components to analyze performance of BlackBerry phones to reduce interference and improve WiFi-LTE coexistence and user experience.

The University of British Columbia   Vancouver, BC
Graduate Research Assistant | Cellular Network Optimization   Sep 2011 - Feb 2014

- Developed novel resource optimization schemes for energy efficiency and interference mitigation to enhance mobile user experience in heterogeneous networks or small cells resulting in IEEE research publication.

Education

Harvard Business School Online, Boston, MA, USA
Certificate in Leadership Principles   February 2023

The University of British Columbia, Vancouver, BC, Canada
Master of Applied Science, Electrical and Computer Engineering   May 2014

Tribhuvan University, Institute of Engineering, Nepal
Bachelor of Engineering, Electronics and Communication   April 2010