Wilson Scott

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Technical Skills

Software Development:

      Languages: C, Python, C++, Java, JavaScript, HTML, CSS

      Concepts: board bring-up, drivers, bootloaders, hardware interrupts, timers, ISRs, HAL

Hardware Development: AVR Atmega328p, Raspberry Pi, Orange Pi, ESP8266/ESP-01

Development Tools And Environments: Vim, Git, Github, Jira, Jenkins, Linux

Build Tools: Make, GCC, AVR-GCC, Yocto, Bitbake

Standards and Protocols: I2C, UART, Serial (RS-232), AT Commands, REST, XML, JSON

Business Skills: Negotiation and conflict resolution, written and verbal communication, resource management, analysis and research, client relationship management, risk management

Experience

Embedded Software Engineer Co-op, Sierra Wireless – Richmond, BC   May 2022 – December 2022

- Wrote a Python tool to automate recovery of failed devices from the factory production line that reduced the time necessary to recover devices to default settings.
- Created a command-line Python tool using the Jira REST API for easily creating, updating, and retrieving ticket and issue tracking information to better integrate Jira into general ticketing workflow.
- Tested and debugged a Yocto recipe to ensure compatibility of the compiled image with new hardware.
- Optimized documentation used by factory workers for debugging production line issues by simplifying the document format and implementing a plain language approach to technical content.

Counsel, Murphy & Company LLP – Vancouver, BC   January 2019 – September 2021

- Managed time-sensitive matters for clients on issues ranging from pre-litigation disputes to contractual negotiations while working within client budgetary constraints.
- Regularly conducted research into legal issues, legislative updates, regulatory compliance issues and court decisions affecting clients.
- Negotiated and drafted all manners of corporate documents including service agreements, shareholder agreements, asset purchase agreements, and various corporate governance filings.
- Provided mentorship to junior staff and articling students while managing a full caseload of 5-20+ matters.

Director, Woodsons Law Corporation – Vancouver, BC   October 2017 – January 2019

- Directed staff and coordinated business operations including client intake and customer management.
- Regularly advised clients on legal strategy and risk management in regards to pre-litigation disputes.
- Provided counsel on corporate governance matters, shareholder relations, and annual filing requirements.

Projects

Tabletop Vehicle   github.com/wil-scott/autonomous-vehicle-project

- Designed a vehicle powered by two DC motors able to detect and avoid surface edges using an HC-SR04 distance sensor.
- Created a vehicle chassis capable of supporting two DC motors, an L293D module, an Arduino Uno/ATMEGA328p, an ultrasonic sensor, an OLED screen, and a 9 volt power supply.
- Designed and implemented a schematic connecting each peripheral and powering the vehicle.
- Wrote an I2C driver from scratch in C using ATMEGA328p's TWI module for communicating with onboard OLED.
- Wrote a bare-metal C driver for the HC-SR04 ultrasonic distance sensor, using the ATMEGA328p hardware interrupt pins to accurately measure the distance between the sensor and the nearest surface.
- Wrote a bare-metal C driver for the OLED screen to display status and distance measurements in real time.
- Created a Makefile to streamline compiling and flashing of program code via the AVR-GCC toolchain.

IoT Environment Monitoring Device   bcit-reseach-long-term-issp.github.io/

- Worked as part of a multidisciplinary team to build an IoT device aimed at real-time data collection for monitoring water quality.
- Refactored a pre-existing C codebase to C++ while maintaining code functionality and improving code portability.
- Adapted to changing project requirements and specifications by developing a work schedule for redesigning circuitry and code to accommodate changing hardware requirements.
- Wrote detailed handover documentation outlining code refactoring, schematic design updates, and summarized the remaining deliverables for future teams.

Education

British Columbia Institute of Technology – Computer Systems Technology Diploma   December 2023

University of British Columbia – Juris Doctor   May 2016

Trent University – Bachelor of Business Administration, Honours   May 2013

Memberships

Law Society of British Columbia, Member   May 2016 - Present