

JASON FEVANG | RESUME

Software Engineer

Status: C++ Developer, Embedded Software Engineer

Tech: C++11, Python, FreeRTOS, microcontrollers, PWM, hardware protocols, Git, Jira, Visual Studio, Linux, Windows

Personal Interests: Vim, Arch Linux, Soccer, Guitar

Vancouver, Canada

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Summary

I'm a computer engineering graduate specialized in C++ development in the embedded space. Currently, I'm focused on developing custom LED solutions for the film industry in Vancouver

Experience

Software Developer | Team Lead - Better Way Lighting

2019 - Current

- Led a team of up to three software developers, in collaboration with hardware engineers, designers, and stakeholders to develop LED panels, DMX decoders, smart bulbs and more used on film sets globally, including Avatar 2 and Riverdale
- Introduced automated and manual testing to avoid regressions and improve software quality company-wide

Software Developer | Co-op - Sierra Wireless

2017 - 2018

- Enhanced the Sierra Wireless API to the Qualcomm cellular communication chip for specialized Windows laptops from various manufacturers in C++
- Tested Wake-On-Lan capabilities of the chipset on pre-release laptops

QA Engineer | Co-op - ACL Services

2016

- Developed our team's automated test suite using Capybara and RSpec which greatly improved test coverage
- Built a performance stress-testing tool in Ruby to generate database entries through ACL's API which allowed more thorough testing for the quality assurance team

Projects

STM8 Decoder Firmware and Bootloader - Better Way Lighting

2022

- Reverse-engineered and wrote custom firmware in C for six varieties of DMX512 decoders, with over 1000 devices programmed
- Developed a custom bootloader and programmer(ESP32) to update decoders through the DMX input
- Automated all configuration, build and flashing tooling using makefiles and python scripts for development with the COSMIC STM8 Toolchain

Household Waste Pickup Indicator - Personal Project

2022

- Wrote a web server in Rust that exposes a REST interface serving the next waste pickup event
- Designed a custom PCB for an ESP32 that queries my server's endpoint and indicates if today is a pickup day

Handheld Dmx Multitool - Better Way Lighting

2021

- Developed a full-color UI using LVGL, abstracted such that UI development occurred on desktop, then was cross-compiled to the ESP32
- Led an agile-based scrum team of two members to coordinate development efforts
- Architected application software in C++, supporting hardware features such as SD card use, DMX512, Wi-Fi, battery management and more

Education

BASc Computer Engineering - Simon Fraser University

2015 - 2019

- Bachelor of Applied Science, Computer Engineering (With Distinction), 3.92 CGPA