Christopher Kalitin

Burnaby, BC, Canada
(778) 980-4863
christopher.kalitin@gmail.com

EXPERIENCE

UBC Solar Student Design Team — BMS Team

SEP 2024 - PRESENT

On the Battery Management System team I characterized voltage and current measurement systems including the HASS-100S sensor and STM32 ADCs. I wrote firmware for automated characterization using SCPI. I also debugged issues to do with the entire car including STM32 Independent Watchdogs, wiring, radio telemetry, and various PCBs.

EDUCATION

UBC, Vancouver — *Integrated Engineering Undergrad*

SEP 2024 - PRESENT

Graduating April 2028.

Second year at UBC in the Integrated Engineering program where we take classes in almost all engineering disciplines.

PROJECTS

Automated ADC Characterization — *STM32 / C*

I wrote firmware to get DMA ADC values from STM32s over UART to a Python script. This script used SCPI to command DMMs & an AFG to set and read a voltage. Used for current sensor characterization and ADC characterization which output error polynomials of degree n.

PCB Design — *Altium*

I taught myself PCB Design and am working on a PCB for time-series voltage/current sensing (multimeter/oscilloscope).

Unity Networking Library — *C#*

I wrote an 8k line Unity Networking Library that abstracted away .NET networking function and focused on ease of use for the end user. This included synced network gameobjects, local server hosting, interpolation, automated packet generation, etc.

Space Industry Data Analysis Library — *Python*

I've written over a dozen blog posts analysing the space industry and wrote a Python/Pandas library for plotting Jonathan McDowell's datasets.

Portfolio

Portfolio
Project Blog Posts

SKILLS

STM32 Firmware Programming

PCB Design (Altium)

C++ & SDL2

Python Data Analysis

Python Physics Modelling

Unity C# .NET Networking

Unity Game Development

CNNs in PyTorch

Certifications / Awards

Unity Certified User: Programmer
Certification gained in 2020.