

Christopher Kalitin

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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 Game Development](#)

[CNNs](#) in [PyTorch](#)

Certifications / Awards

Unity Certified User:

Programmer

Certification gained in 2020.