

# Christopher Kalitin

7971 Wedgewood  
Burnaby, BC, V5E2E7  
(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 — Engineering Undergrad

SEP 2024 - PRESENT

First year of UBC Engineering.

Currently no major as placements have not been announced after first year.

## 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. I later expanded it to automatically characterize current sensor as well and output an error polynomial of degree n.

### PCB Design — Altium

In service of UBC Solar 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 network objects, local server hosting, interpolation, automated TCP / UDP packet generation, and all the other networking stuff.

### Space Industry Data Analysis Library — Python

I've written a [dozen blog posts](#) analysing the space industry and wrote a [Python/Pandas library](#) for interaction with Jonathan McDowell's datasets.

## Links

[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](#)

[Convolutional Neural Nets](#)

## Certifications / Awards

Unity Certified User:  
Programmer

Got this in Grade 8 when making tons of Unity games.