

Bruno Almeida

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brunoalmeida.ca
Toronto, ON, Canada

EDUCATION

BASc, Electrical Engineering – University of Toronto Sep 2016 – Apr 2021

- 3.89/4.00 CGPA, Dean's List

EXPERIENCE

Electrical Engineering Intern – Nuro (Mountain View, CA, United States) Jun 2020 – Aug 2020

- Evaluated and prototyped sensing solutions through research, vendor meetings, electrical architecture planning, component selection, and PCB design in Altium Designer
- Conducted evaluation kit bringup and testing of sensors to understand environmental considerations and their influences on sensor output and synchronization
- Collaborated with firmware engineers to develop interfacing solutions for new serial communication protocols

ASIC Engineering Intern – Tenstorrent (Toronto, ON, Canada) May 2019 – Apr 2020

- Conducted post-silicon bringup and characterization of the Grayskull machine learning accelerator using Python and Bash scripting on Linux systems
- Reviewed and corrected issues in PCB schematics and layout using Altium Designer for a multiphase buck converter and PCIe design
- Improved pre-silicon RTL verification coverage of input permutations using Python and C++ for directed tests and constrained random verification

FPGA Engineering Intern – Kepler Communications (Toronto, ON, Canada) May 2018 – Aug 2018

- Integrated an RTL IP core for RF mapping of Ku-band signals into the FPGA design and scripted signal generation and data collection from the software-defined radio in Python for benchtop bringup and validation
- Wrote and brought up a testbench for a replacement JESD204 RTL IP core for DAC output to the radio using SystemVerilog, ModelSim, and Vivado

CLUBS

Firmware Lead, Electronics Systems Lead, Instrumentation Lead, Advisor Jan 2017 – Present
University of Toronto Aerospace Team, Space Systems Division

- Held multiple leadership, membership, and advisory positions in electrical, firmware, and systems engineering on a student satellite design team for microbiology and hyperspectral imaging CubeSat missions
- Designed PCBs using Altium Designer for the main onboard computer and the systems board for debugging the fully assembled satellite
- Conducted PCB bringup and led C firmware development for AVR microcontrollers with SPI, I2C, UART, and CAN peripherals
- Developed and implemented technical specifications for electrical wiring, firmware architecture, CAN communication, flash memory organization, and ground station command handling

Student Ambassador – University of Toronto Engineering Mar 2017 – Present

- Represented the engineering program at open houses and admission events for prospective students and parents through information booths, presentations, and student panels

SKILLS

Hardware – Altium Designer, Soldering, PCB Bringup

Embedded – SystemVerilog, ModelSim, Vivado, Quartus Prime, AVR, STM32, Arduino

Programming – C, C++, Python, Assembly, Bash Scripting, Make, Git

Interests – Mentorship, Basketball, Tennis