Ian Holzman (He/Him) Electrical Engineering Student

ian_holzman@outlook.com | 206 669 3224 |
https://ianholzman.github.io/

7617 Latona Ave NE, Seattle, WA 98115

EDUCATION

University of British Columbia **April, 2027**
Bachelor of Applied Science Electrical Engineering

WORK EXPERIENCE

Advanced Micro Devices, Vancouver, BC **September, 2025 – Present**
Memory Architecture Intern

- Corrected AMD's memory subsystem power-model calculations by resolving mismatches with vendor power data, correcting misapplications of JEDEC-defined IDD operating conditions, and determining termination behaviors.
- Added SOCAMM, DRAM-on-PCB, MRDIMM and LPMRDIMM configuration support to AMD's memory subsystem power model.
- Developed Github Actions and cron scripts to automate daily publishing of internal PHY documentation.
- Converted the memory subsystem power model output from a static Excel sheet to an interactive web tool with selectable configurations and load conditions.

Motorola Solutions, Vancouver, BC **September, 2024 – April, 2025**
Electronics Design Engineer Co-op

- Designed and validated two IR LED-driver PCBs with SPI/I²C interfaces for a new camera product, integrating them into fully functional prototype units.
- Completed system-level electrical testing for new camera product—Hi-Pot, ESD, PoE-compatibility, loop-gain—and supported EMC and thermal testing.
- Delivered a successful first build of a new camera by resolving hardware, firmware, and electrical production issues during initial factory assembly.

University of British Columbia, Vancouver, BC **September, 2023 – December, 2023**
Teaching Assistant, Computing Systems I

- Course topics include assembly and Verilog programming, combinational and sequential circuits, microarchitecture, memory addressing, and I/O structures and interfacing.
- Held office hours, led tutorials, and graded course labs.

TECHNICAL SKILLS

Coding Languages
- C++
- SystemVerilog
- ARM Assembly
- Python Scripting

Software
- Linux
- Git
- Altium Designer
- Quartus

Hardware Skills / Tools
- Analog and Digital Circuit Design
- Voltage Regulation
- Signal Processing

TECHNICAL PROJECTS

Self-Balancing Bluetooth controlled Robot, UBC **May, 2025 – June, 2025**

- Designed a fully autonomous, two-wheel, self-balancing robot, with PID control system.
- Wrote firmware in C++, designed and verified circuitry involving voltage regulation, motors and motor controllers, and Hall-effect rotary encoders.
- Created and implemented a Bluetooth mobile app to control robot wirelessly.

Reflow Oven Controller, UBC **February, 2023 – March, 2023**

- Designed a reflow oven controller using assembly language.
- Implemented MCP3008 microcontroller, toaster oven with PWM control, and user interface.

Private Garden Controller, Denmark Technical University **March, 2024 – April, 2024**

- IoT communication using LoraWan, Bluetooth Low Energy, and WiFi between sensor station, base station, actuator station, webpage, and Raspberry Pi home assistant, coded in C++.
- Uses past and present weather data, based on specific location using IP addresses, to evaluate when plants should be watered and exposed to UV lamps.

AWARDS

Deans Honour List, 86% Yearly Average 2023/24

INTERESTS & ACTIVITIES

- **Ultimate Frisbee**
- **Traveling**
- **Backpacking**
- **Hiking**