Ian Holzman (He/Him) **Electrical Engineering Student**

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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
- Enhanced AMD's memory-subsystem power model by implementing Python-based extensions for additional components, configurations, operating conditions, and operating modes.
- Implemented firmware updates, and contributed to RTL design for DDR PHY subsystem.

Motorola Solutions, Vancouver, BC **September, 2024 – April, 2025**
Electronics Design Engineer Co-op
- Designed and tested PCBs ensuring functionality and reliability for industry products.
- Performed EMC, loop-gain, thermal chamber, HiPot, PoE compatibility, and ESD testing for embedded camera systems.
- Operated and maintained specialized lab equipment.

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**