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 training-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.
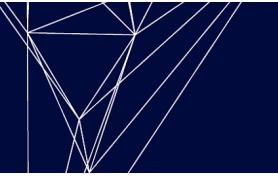
TECHNICAL SKILLS

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

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Co-op Program
Faculty of Applied Science

COOP.APSC.UBC.CA
604-822-3022
aspc.coop@ubc.ca

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++, and 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.

UV LED Air Purifier, REX Program UBC   **October, 2021 – March, 2022**
- Completed research project on design of a UV LED air purifier during COVID-19 pandemic, presented project findings to panel of judges, abstract published in URNCST journal.

AWARDS

Deans Honour List, 86% Yearly Average   2023/24

INTERESTS & ACTIVITIES

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

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