

Rory McCulloch

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Bilingual

English & French

SUMMARY

Dual-degree Electrical Engineering & Computing Technology student at uOttawa with practical experience in Embedded Systems and PCB Design. Passionate about hardware-software integration and seeking a Summer 2026 Co-op.

PROFESSIONAL EXPERIENCE

Electrical Engineering Intern, Aim Colours

May '25 - Sep. '25

- Designed and routed multi-layer PCB backplanes for wearable technology, collaborating with industrial designers to ensure components fit strict ergonomic form factors.
- Analyzed power consumption profiles for embedded microcontrollers (XIAO MG24), optimizing circuit design for extended battery life.
- Managed DFM (Design for Manufacturing) validation with external vendors, reducing production errors for prototype runs.

Production Staff, Vandermeer Nursery Ltd.

May '25 - Jul. '25

- Worked strict early-morning shifts to support daily greenhouse operations.

PROJECTS & LEADERSHIP

Counter-UAV System, Shazam4Drones - Defense Tech

Nov. '25

- Built real-time drone detection by audio, achieving 70% accuracy in a national defence hackathon placing 4th out of 87 teams.
- Collaborated to develop a deployable counter-UAV system for military applications.
- Without compromising aesthetics, we developed a prototype of a mobile app version to be used in the battlefield and later integrated in a standalone device to improve practicality.

Live Weather Tracking System for Aircrafts, uOttahack

Jan. '25

- Used an Arduino & temperature sensor to develop a live weather tracking system for aircrafts.
- Created an appealing front-end using Chart.js to display a live graph accompanied by user-friendly UI made with CSS and HTML.
- Bridged the back-end running on Python to the front-end using NPM to host a server.

Co-Lead, Student Professional Awareness Conference (SPAC)

Oct. '25

- Organized a conference of 300+ attendees for networking between students and professionals.
- Raised thousands of dollars in sponsorship thanks to securing 20+ industry partners.
- Coordinated several hands-on workshops in parallel with networking and panelist presentations.

UNIVERSITY OF OTTAWA

BASc in Electrical Engineering and BSc in Computing Technology

Sep. '24 - Apr. '29

Computer Architecture, Circuit Theory I & II, Data Structures and Algorithms

SKILLS

Forté

PCB Design - Traces, microcontrollers, design and board manufacturing.

Other

Java, C++, Python, Go, R, JS, Arduino, MS Office 365, KiCad, Adobe, Eclipse, Visual Studio