

Alexandre Radaelli

Electrical Engineering Student



I'm 20 and I love working on cool projects with friends. Right now, I'm diving into robotics to see where I can make an impact. I'm interested in new tech, including AI—where I've built RAG-based search model—and energy generation, especially nuclear, which I've been researching since high school.

I'm set on joining a fast-paced design environment where I can dive into existing work, learn from what's been done by more experienced engineers, and figure things out on my own. I know the thrill of getting hardware to work in personal projects, but I want to understand how things are done in industry workflows and find where I can make an impact.

Outside of tech, I stay active by playing soccer, doing gymnastics, running, and hitting the gym to stay healthy. In my free time, I ski and rock climb. I'm also experimenting with Bryan Johnson's Blueprint to see if I notice any benefits.

Ultimately, I'm looking for a team that's deeply invested in their vision and has built an environment that fosters motivation—one that's willing to take me on as a curious, driven individual who's still learning but pretty good at figuring things out.

> CONTACT

📞 +1 647 326 2282

📧 x.com/alexrradaelli

✉️ alexrradaelli@gmail.com

🌐 alexradelli.com

> PROJECTS

BRACKETBOT HACK 2025

My team built a three-wheeled bracket bot controlled via a Wii Remote and Balance Board, featuring a POV camera streamed through localhost and speakers playing classic Wii music.

RC CAR 2024

My first robotics project was an RC car built with Arduino, H-bridges, DC motors, a Bluetooth module, and a battery pack.

3D PRINTING HOBBY 2020

I've been 3D printing since early COVID, starting with random prints like a wallet and evolving into designing robotics parts. I use Fusion and am learning Onshape, with experience on Bambu Lab and Prusa printers.

DRONE MOTOR CONTROL 2025

As part of the planetary robotics team, I'm developing motor control for a drone by replacing the ESC with a surface-mounted chip that takes PWM signals and drives an external MOSFETs circuit. Utilizing Altium for PCB design.

MICROBOT HACK 2024

For the Microbots Hackathon, my team built a bunny-like quadrupedal robot (4" x 4" x 4.5"). It uses a CodeCell, DriveCell, DC motor, LiPo battery, and bevel gears to drive its legs with a unique mechanism.

REPLIT 100 DAYS PYTHON 2023

Python was my starting point in coding and continues to be my strongest language. I can also work with C, C++ and Java.

> EXPERIENCE

HATCH Ltd. — ENERGY BUSINESS UNIT

Electrical Engineering Co-op

Toronto, Canada

During my one year at Hatch, I got to work on diverse projects across nuclear, power transmission, industrial system design and software initiatives.

- **Nuclear Research Reactor Study** – Assisted with a determination and bid for a nuclear research reactor.
- **HVDC Function Specification** – Contributed to substation design, cable selection, and grid stability studies.
- **Industrial HVAC & Heat Pump Design** – Helped in the design of the control systems for a HVAC system and performed electrical wiring calculations for an industrial heat pump installation project.
- **Internal Software Projects** – Automated quality tasks and developed RAG-based search algorithms for the Nuclear and Quality teams.

Jan to Dec
2025

BELL CANADA — NETWORK OPERATION

Technician

Greater Toronto Area, Canada

Worked on internet routing as Bell transitioned from DSL to fiber in the GTA. Helped migrate customers between DSLAMs, decommission old units

Summer
2023

TORONTO GYMNASTICS INTERNATIONAL

Gymnastics Coach

Toronto, Canada

I worked as a certified gymnastics coach for 2 years while in high school. Every time I went with the mindset: "How can I influence these kids towards future success.". I created lesson plans and worked with a team of other coaches to make it possible.

2018 - 2020

> EDUCATION

CARLETON UNIVERSITY

Electrical Engineering

Ottawa, Canada

- Completed 1st year with a 4.24 GPA and Fall of 2nd year with a 4.3.
- Currently holding a Renewable Entrance Scholarship, the Faculty of Engineering Scholar Award and Department of Electronics Parameswaran Family Scholarship (total of >20 000 CAD).
- My target graduation date is Winter 2027.

2022 - Present