

Bradley Boratto

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EDUCATION

Bachelor of Science, Computer Science & Physics, University of Toronto

Expected Apr 2028

EXPERIENCE

Founder, [Botblocks](#)

May 2026 - Present

- Built a high-level robotics platform to define, simulate, train, and deploy robots in a few lines of Python.
- Designed its runtime to support deploying to real hardware, simulation, or the cloud, with no code changes.
- Received \$25,000 in funding for continued development and commercialization

Software Engineering Intern, RIIS

May 2025 - Aug 2025

- Built a drone controller's custom PCB, case, and asynchronous C++ firmware (on 2KB RAM, 16MHz CPU)
- Communicated directly with clients to make design choices and iterate based on feedback

Data Intern, Watoga Technologies

Feb 2025 - Mar 2025

- Used Python to clean and process 440MB of poorly formatted rock samples into an SQL database
- Multithreaded code to solve file parsing library bottleneck (7.6x speedup)
- Built Scipy/Matplotlib models to find mineral rich deposits, validated through 2D and 3D visualizations

Robotics Intern, Optimotive

Jan 2023 - May 2023

- Primary engineer of an industrial cleaning robot prototype (programming, fabrication, electronics)
- Programmed subsystems (ex. depth cameras), interfacing with our robot chassis via its Linux computer
- Reverse engineered undocumented motor controller protocols to support game controller input

EXTRACURRICULAR

Vice President, UofT Math Union

Feb 2025 - Present

- Coordinated and organized events, as well as overhauled website development and administrative work

Reading Group Leader, UofT Physics Union

Aug 2026 - Present

- Taught students a course on control for modern robotics (covering PID and LQR up to RL)

Participant/Winner, CS Games

Mar 2024

- Selected to participate in 3 days of pair competitive-programming style challenges
- Won "High-Performance Computing", best performance optimizing an ML framework in C++ & WebGPU

PROJECTS

[microgpt \(live demo\)](#)

- Interactive GPT-like small LLM in the browser via TensorFlow.js. Learns to generate names from 30k samples. Users can visualize model architecture, weights, and activations as it runs. Made front page of Hacker News.

[ria \(github\)](#)

- A 3D printed two-wheeled robot with knees allowing jumps up to 20cm, and travel up to 30km/h.
- Trained (via reinforcement learning) in Botblocks, and deployed via its microcontroller runtime

[autocomplete \(github\)](#)

- Finetuned Qwen 14B on my personal chat data using Unsloth, runs locally via Ollama
- Built Chrome extension to feed model output to Discord, serving as long-form autocomplete.

[wasm67 \(github\)](#)

- WASM4 virtual console runtime (Rust) for Raspberry Pi Pico. Implements framebuffer, input, and syscalls

TECHNICAL SKILLS

Languages: C, C++, C#, Rust, Go, Python, HTML, CSS, JavaScript, Java, Bash

Developer Tools: React, Tailwind, Firebase, Unity, MongoDB, SQL, Git, Docker

Other: Fusion 360, 3D Printing, Linux, Embedded Systems, Arduino, ESP32