Bradley Boratto

Windsor, Canada   **Available for any start date**

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EDUCATION

University of Windsor   **September 2023 – December 2026**
Bachelor of Computer Science, Honours   *Windsor, Ontario*
- Courses include Calculus 1/2, C 1/2, Object-Oriented Programming, and Computer Architecture

EXPERIENCE

Optimotive Technologies   **January 2023 – May 2023**
Robot Pit Crew Intern   *Windsor, Ontario*
- Primary engineer of an industrial cleaning robot prototype, involved in all aspects of development including conceptualization, programming, fabrication, and electronics
- Focused primarily on programming robotic subsystems using Python, connecting various parts of a commercial robot chassis through an onboard Linux computer
- Implemented robot depth perception using Intel RealSense cameras and OpenCV; reverse-engineered undocumented motor controller protocols to support game controller input.

EXTRACURRICULAR

University of Windsor   **October 2023 – December 2023**
Software Developer (Research Assistant)   *Windsor, Ontario*
- Developed HTTP/REST server in C++ (targeting ESP32 microcontrollers) to host sensor data dashboard
- Developed dashboard in React, including realtime graphing and data export
- Worked in the MicroNano mechatronics research lab under Dr. Jalal Ahamed

Knight Vision Robotics   **January 2019 – June 2023**
Team Member   *Windsor, Ontario*
- Became head of programming subteam as well as member of other subteams
- Created CAD models in Fusion 360 and manufactured physical systems along with the engineering team and professional mentors
- Developed a computer vision program using Python and Java for autonomous game piece manipulation using GRIP/OpenCV

PROJECTS

BlazeGuard | *React, Node.js*
- Wildfire detection and reporting app concept developed for NASA Space Apps hackathon
- React frontend and Node.js backend running deep learning fire detection service
- First place winner at local event

boratto.ca/winzard | *React, MongoDB, Go, Python*
- Tool to generate optimal (least time between classes) university timetables, actively used by students
- Course availability data pulled from university website using Python scraper, uploaded to MongoDB database, then served to React frontend through Go backend server

boratto.ca | *NGINX, Linux, Various Technologies*
- Hosts many services such as VPN and website, primarily running on Linux and routed through NGINX

TECHNICAL SKILLS

Languages: C , C++, C#, Go, Python, HTML, CSS, JavaScript, Java, Bash
Developer Tools: React, Bulma, Tailwind, Firebase, Unity, MongoDB
Other: Fusion 360, 3D Printing, Linux, Embedded Systems, Arduino, ESP32