Austin Williams

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Education

University of Waterloo
Bachelor of Applied Science in Mechatronics Engineering *Waterloo, Ontario*

Technical Skills

- C++
- Python
- Arduino IDE
- SolidWorks
- AutoCAD
- Sensor Integration
- Embedded Systems
- Microsoft Office
- Google Workspace
- LSS Yellow Belt

Projects

Toddler Drawing Gantry System | *VexIQ, C++* **September 2025 – December 2025**
- Designed and built a 2-axis gantry system using VEX components to control precise pen motion.
- Programmed coordinated motor control in C++ to accurately draw predefined geometric shapes.
- Incorporated safety-focused design features for toddler use while maintaining function.

Smartphone-Controlled Robotic Car | *Arduino Uno, Arduino IDE* **July 2025 – August 2025**
- Assembled a robotic vehicle chassis with DC motors and motor driver circuitry.
- Integrated HC-05 Bluetooth module for wireless smartphone communication.
- Programmed embedded motor control logic and developed a mobile interface for real-time user input.

Experience

Swim Instructor **December 2024 – August 2025**
Self Employed *Belleville, Ontario*
- Taught competitive and recreational swimmers ages 11–17, improving their technique and speed.
- Strengthened leadership, communication, adaptability, and risk management skills.

Science Fair Instructional Website **2022 – 2023**
QRSTF Volunteer Position *Belleville, Ontario*
- Developed an educational website guiding students through online science fair project development
- Website recognized and reposted by Chris Hadfield, 1000+ views
- Strengthened technical communication and web development skills

STEM Content Creator **2023 – 2025**
QRSTF Volunteer Position *Belleville, Ontario*
- Designed and created several videos to instruct students on science fair procedures and science promotion
- Used in several regions across Canada, 12 000+ views

Awards

Entrance Scholarship | *President's Scholarship of Distinction*	**2025**
Governor General's Academic Medal | *Top Average in Grade 12*	**2025**
Lieutenant Governor's Volunteer Award | *Most Volunteer Hours*	**2025**
The Belleville Police Award | *Association with Police in Promoting Safety*	**2025**
Duke of Edinburgh Gold Award | *Completed the Duke of Edinburgh Program*	**2024**

Leadership

Befriended Elderly | *Donated and became pen pals with a resident at a local retirement home*	**2023 – present**
Peer Mentor | *Supported students in academics and STEM initiatives*	**2021 – 2025**
Student Voice Council Member | *Represented student perspectives in school governance*	**2024**
Hasting's Manor Long Term Care Facility | *Helped clean up gardens at a local retirement home*	**2023**
Grace Inn Homeless Shelter | *Fundraised and organized events for the unhoused*	**2023**

Other Interests

- Certified Lifeguard
- PADI Openwater
- Bikepacking (200km)
- White Water Kayaking
- Varsity Swimming