

Akash Kothari

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EDUCATION

University of Waterloo

Bachelor of Applied Science in Computer Engineering (Co-op)

Waterloo, ON

Sep. 2025 – Apr. 2030 (Expected)

The Woodlands Secondary School

Highschool Diploma

Mississauga, ON

Sep. 2021 – Jun. 2025

EXPERIENCE

Software Engineering Intern

Tripleview Technologies

Jun. 2025 – Sep. 2025

Mississauga, ON

- Developed automated workflows using Azure and Microsoft Graph API to detect and retrieve Microsoft Teams call recordings
- Implemented webhook triggers, polling logic, and AI-powered summarization to process call transcripts
- Integrated results into Zendesk tickets by uploading AI-generated meeting summaries to improve client support workflows
- Independently owned the full development cycle from design to deployment, ensuring end-to-end functionality

Lead Math Instructor

Mathnasium of Lakeview

Sep. 2023 – Sep. 2025

Mississauga, ON

- Tutored high school students (Grades 9–12) in mathematics, specializing in advanced algebra, calculus, and problem-solving
- Assisted with administrative tasks, including grading assessments, tracking student progress, and filing reports
- Led small-group instruction and adapted teaching methods to diverse learning needs
- Mentored new instructors, enhancing team collaboration and center efficiency

Volunteer Research Assistant (Part-time)

WatIMake, University of Waterloo

Jun. 2025 – Sep. 2025

Waterloo, ON

- Assisted a fourth-year student in building modular prototypes for a Stewart Platform-inspired teaching tool
- Supported experiments in PID control systems using simple electromechanical setups (motors, sensors, and balancing mechanisms)
- Contributed to the development of lab modules aimed at teaching control systems and robotics concepts to undergraduates
- Collaborated with faculty and students in a hands-on research environment

PROJECTS

FingerPointer | C++, MPU6050, ESP32, Circuit Design, Git

Apr. 2025 – Jun. 2025

- Designed and built a wearable pointer device using an ESP32 microcontroller and MPU6050 accelerometer/gyroscope
- Implemented motion tracking and gesture recognition for directional control
- Developed firmware in Arduino C++ to process IMU sensor data and map orientation to pointer movement
- Designed custom power circuitry with a TP4056 charging module, 3.7V Li-ion battery, and boost converter for portability

Self-Balancing Robot (Gyroscope Robot) | PID Control, C++, Arduino, Soldering, Git

Sep. 2024 – Jan. 2025

- Built a self-balancing two-wheel robot that uses an MPU6050 gyroscope + accelerometer for real-time tilt measurement
- Implemented a PID controller in Arduino to maintain vertical balance by adjusting motor speed dynamically
- Designed and assembled a custom polycarbonate frame to optimize center of mass and stability

TECHNICAL SKILLS

Languages: Python, C/C++ (Arduino), Java, C#, JavaScript (ES6+), HTML/CSS

Frameworks & Platforms: React, Node.js, Unity, Azure, Microsoft Graph API

Developer Tools: Git, VS Code, Arduino IDE

Microcontroller Libraries: BleMouse, MPU6050_light

Hardware & Electronics: Arduino, ESP32, MPU6050 IMU, Motor Drivers, PID Control Systems, Sensors