Akash Kothari

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Education

University of Waterloo Waterloo, ON

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

Experience

AI/ML Powered Software Engineering Intern Jan. 2026 – Present

RamSoft *Toronto, ON*

- Developing **AI-driven automation features** for a healthcare workflow platform used in clinical environments.
- Integrated **Azure OpenAI**, backend services, and internal APIs to accelerate workflow execution
- Contributing to a large **forked open-source codebase**, adding organization-specific logic, middleware, and unit tests under enterprise standards.
- Working with authentication, request validation, and service-level abstractions in a production healthcare system.

Cloud Software Engineering Intern Jun. 2025 – Sep. 2025

Tripleview Technologies *Mississauga, ON*

- Automated retrieval of Microsoft Teams call recordings using **Azure**, **Microsoft Graph**, and **C#**, reducing manual labour by **10+ hours per week** for customer support teams.
- Implemented webhook triggers, polling logic, and **AI-powered** summarization pipelines that streamlined transcript processing and improved response time.
- Integrated results into **Zendesk**, creating structured tickets with detailed summaries that cut agent writing time and reduced miscommunication.
- Owned the full development cycle including design, coding, deployment, and monitoring, delivering production-ready features now being expanded into broader internal tooling.

Projects

Mathora - Learn Math Visually | ***React Three Fiber, Three.js, LLMs, Express*** Dec. 2025 – Present

- Currently building an interactive math instruction engine where an LLM dynamically controls **3D graphing, whiteboard, camera, and voiceover animations**.
- Designed a **custom animation library and parameter schema** exposed to the LLM via structured prompts, enabling safe, deterministic visual execution.
- Implemented a **timeline-based rendering system** that synchronizes explanations, animations, and narration for step-by-step learning.

NBA Game Predictor | ***Python, Flask, React, XGBoost, Data Engineering*** 2025

- Engineered a machine learning pipeline using **XGBoost** with feature engineering, hyperparameter tuning, and model evaluation on 7+ seasons, achieving an accuracy of **64.8%**.
- Developed a **Flask** API giving daily predictions hooked to a **React** frontend with confidence visualizations.
- Built automated data scraping and cleaning using **pandas** to process historical and daily matchup statistics.

LockIn AI – Distraction/Habit Detection App | ***Python, YOLO, OpenCV, Next.js*** Hackathon Project

- As a part of a team of four, within 36 hours we built a desktop productivity tool with **YOLO + OpenCV** for webcam inference and screen monitoring.
- Implemented a Python backend (**Flask + SocketIO**) with threaded workers for continuous detection and events.
- Created an **Electron** shell + Next.js UI for habit toggles, site blocking, and live monitoring feedback.

FingerPointer | ***C++, MPU6050, ESP32, Circuit Design*** Apr. 2025 – Jun. 2025

- Built a wearable pointer device with motion tracking and gesture recognition using an ESP32 + MPU6050.
- Developed firmware in Arduino C++ and designed custom power circuitry for portability.
- Explored potential accessibility applications for alternative input methods.

Technical Skills

Languages: Python, C/C++, Java, C#, JavaScript (ES6+), SQL
Frameworks & Platforms: Flask, React, Next.js, Electron, Node.js, Azure, Microsoft Graph API
Machine Learning: Scikit-learn, Pytorch, XGBoost, Pandas, Data Preprocessing, Model Tuning, Computer Vision
Developer Tools: Git, VS Code, Postman
Hardware & Electronics: Arduino, Raspberry Pi, ESP32, IMUs, PID Control Systems