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-powered automation workflows** for a radiology platform, OmegaAI
- Built and deployed a **real-time medical transcription (MedASR) prototype** with chunked audio streaming to simulate live dictation to cut costs and protect patient information, using **Kubernetes**.
- Collaborating on backend integration, authentication flows, and staged deployment/testing of AI features within a production clinical environment.

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
- Integrated results into **Zendesk**, creating structured detailed tickets, reducing 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 with fallbacks.
- Implemented a **timeline-based rendering system** that synchronizes explanations, animations, and narration for step-by-step learning.

Yuno Ball – NBA Odds & Prediction Engine | ***Python, Flask, React, XGBoost, Data Engineering*** 2025

- Scraped and processed **9,000+ NBA games**, engineered 27 statistical features, and iteratively reduced noise through feature ablation and importance testing to improve predictive signal.
- Trained and tuned **XGBoost and Random Forest models**, achieving **64.8% accuracy**, then benchmarked predictions against **Polymarket odds** to evaluate edge and grading logic.
- Built a full-stack system with a **Flask API** and **React frontend** featuring graded bets, parlay builder, and a Gemini-powered chatbot that explains model decisions using feature importance analysis.

Interactive WebGL Portfolio | ***Unity (WebGL), React, JavaScript*** 2026

- Engineered an interactive **Unity WebGL portfolio** embedded in a React application with cross-context event messaging between Unity and the frontend.
- Optimized build from **70MB to 10MB** by asset pruning and compression tuning, improving load performance.
- Implemented UI overlays, graceful fallbacks, and scroll-based 2D views to maintain accessibility if WebGL fails

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

- 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.

Technical Skills

Languages: Python, C/C++, C#, Java, JavaScript, TypeScript, SQL
Frameworks & Libraries: React, Next.js, Flask, Node.js/Express, Three.js, React Three Fiber
Cloud & DevOps: Azure, Kubernetes, Microsoft Graph API, REST APIs, Git
ML/Data: Scikit-learn, PyTorch, XGBoost, Pandas, Feature Engineering, Model Evaluation, Computer Vision
Game/3D: Unity, WebGL