

SYED AMMAR ALI

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Portfolio: <https://codexammar.github.io/>

PROFESSIONAL SUMMARY

Computer Engineering graduate with hands-on experience in real-time systems, computer vision, and full-stack development. Led the design of a TensorFlow-based anomaly detection system using Unity and OpenCV. Built secure, modular backend APIs with MongoDB and FastAPI. Dual U.S.-Canadian citizen seeking impactful roles in software engineering, backend development, or AI-driven systems.

TECHNICAL SKILLS

Languages: Python, Java, Swift, SQL, JavaScript

Frameworks/Tools: FastAPI, MongoDB, Docker, SwaggerUI, Unity3D, Quartus, OpenCV, TensorFlow, JUnit, Git, Supabase

Concepts: Anomaly Detection, JWT Authentication, Object-Oriented Design, Agile Methodologies, Real-Time Processing, Model Evaluation (F1, SSIM, MSE)

UI/Software: MATLAB, NetBeans, Eclipse, VS Code, Adobe Creative Suite, DaVinci Resolve

TECHNICAL PROJECTS

Sign Me Up – *Personal Project*

Personal Project | April 2025 - April 2025

- MediaPipe, JavaScript
- Built an interactive ASL education tool using hand detection for real-time sign feedback
- Featured gesture tracking and a responsive UI
 - <https://codexammar.github.io/projects/sign-me-up>

Anomaly Detection in Augmented Reality – *Team Lead*

Toronto Metropolitan University | Sept 2024 – Apr 2025

- TensorFlow, Unity, OpenCV, Python
- Achieved 94% accuracy using hybrid EfficientNetB0 + Autoencoder model on real/synthetic data
- Developed a real-time GUI with webcam overlay, heatmaps, and SSIM-based detection
 - GitHub: <https://github.com/codexammar/Detection-Program.git>

Full-Stack Library Management System – *Backend Engineer*

Toronto Metropolitan University | Jan 2025 – Apr 2025

- FastAPI, MongoDB, SwaggerUI, Docker
- Created secure, role-based REST APIs (JWT) with endpoints for borrowing/editing books
 - GitHub: <https://github.com/codexammar/AutomatedLibrarySystem>

E-Learning and Rewards Web Platform – *Project Manager*

Toronto Metropolitan University | Sept 2024 – Dec 2024

- Built an interactive learning platform where users earn points and unlock training modules
- Managed cross-team functional collaboration and implemented login + progression tracking
 - GitHub: <https://github.com/ltsGoldeneyes/fleetrewards>

EDUCATION

Bachelor's of Engineering(BEng) in Computer Engineering

Toronto Metropolitan University | Sept 2020 – Apr 2025

CERTIFICATIONS

- IBM Cybersecurity Fundamentals (2024)