

Uzair Mukadam

U.S.A | uzair.mukadam1999@gmail.com | +1 585-414-2060 | [LinkedIn](#) | [GitHub](#)

PROFESSIONAL SUMMARY

Software Engineer with 3+ years of experience building scalable systems across backend services, data pipelines, and embedded platforms. Proven track record in regulated industries like Healthcare and Finance, delivering high-reliability solutions including data processing pipelines for 200M+ records and automated testing frameworks covering 80% of critical workflows. Currently pursuing an M.S. in Software Engineering with a focus on systems reliability and AI-driven automation.

EDUCATION

Rochester Institute of Technology (CGPA: 3.89)	M.S Software Engineering	Expected – May 2026
University of Mumbai (GPA: 3.00)	B.E Information Technology	Aug 2017 – June 2021

SKILLS

- **Languages:** Python, Java, C/C++, SQL, JavaScript/TypeScript, Go, Bash
- **Frameworks & Libraries:** Spring Boot, React, Node.js, Pandas, Scikit-learn, Qt/QML, Pygame
- **Cloud & DevOps:** AWS (Lambda, S3, EC2), Azure DevOps, Docker, Kubernetes, Terraform, CI/CD
- **Systems & Tools:** Linux, Git, MongoDB, PostgreSQL, Neo4j, Embedded Systems, RTOS

EXPERIENCE

Rochester Institute of Technology | Software Engineer Rochester, NY, USA | Aug 2025 – Present

- Architected data pipelines processing 200M+ records, ensuring high data integrity for university-wide strategic analysis.
- Developing an AI-powered agent to parse and interpret complex sponsor requirements, significantly reducing manual administrative review.
- Engineered a custom Python-based SQL engine for flat-file analytics, eliminating database overhead for ad-hoc data discovery.
- Designed a centralized dashboard to track workloads across multiple departments, improving operational coordination.

Fresenius Medical Care | Embedded Software Engineer (Co-op) Lawrence, MA, USA | Jan 2025 – June 2025

- Automated ~80% of functional testing for critical-care medical devices using Python, ensuring full traceability and safety compliance.
- Designed and deployed a Linux provisioning solution to enforce least-privilege access during manufacturing and field servicing.
- Upgraded device firmware to align with modern Boost C++ libraries, optimizing memory management and system stability.
- Interfaced with low-level drivers to execute hardware-in-the-loop (HIL) test suites and diagnose system-level failures.

Excelsus BCBS | Software Development Engineer (Intern) Rochester, NY, USA | Jun 2024 – Aug 2024

- Migrated multiple repositories and CI/CD pipelines to Azure DevOps, standardizing artifact management and access control.
- Co-architected the organization's first automated regression testing framework for healthcare claims workflows, reducing manual QA effort.

Tata Consultancy Services (TCS) | Software Engineer Mumbai, India | Aug 2021 – Jul 2023

- Designed and maintained 500+ automated regression tests for REST/SOAP APIs supporting a major Canadian bank's digital platform.
- Deployed RESTful services aligned with OpenAPI specifications, resolving complex integration issues in a distributed microservices environment.
- Led cross-functional defect triage sessions to prioritize and resolve production-impacting financial transaction issues.

PROJECTS

Side scroller game engine Python, Pygame

- Designed a custom 2D game engine from scratch, implementing greedy spatial partitioning for efficient collision detection and custom physics without third-party dependencies.
- Optimized rendering and update cycles to maintain consistent frame rates across varying scene complexity.

Linux-on-Android | [GitHub](#) Android, Bash

- Developed a fully automated Bash framework to deploy Linux distributions on Android devices, featuring robust configuration management and an interactive CLI.

ShelfSync Python, PostgreSQL, React.js

- Built an AI-driven inventory optimization platform using adaptive sawtooth demand models to dynamically adjust reorder points and rebalance stock across locations.

CERTIFICATIONS

- **Azure Fundamentals**, Microsoft [link](#)