

Uzair Mukadam

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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
<ul style="list-style-type: none">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
<ul style="list-style-type: none">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.	
Excellus BCBS Software Development Engineer (Intern)	Rochester, NY, USA Jun 2024 – Aug 2024
<ul style="list-style-type: none">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
<ul style="list-style-type: none">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
<ul style="list-style-type: none">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
<ul style="list-style-type: none">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
<ul style="list-style-type: none">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](#)