Uzair Mukadam

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PROFESSIONAL SUMMARY

Software Engineer with over 4 years of experience designing, building, and scaling distributed backend systems, cloud-native applications, and mission-critical embedded software. Proficient in Java, Python and C, with a proven track record of architecting solutions on AWS, automating CI/CD pipelines with Terraform and Docker, and bridging the gap between low-level systems and high-level cloud architecture.

EDUCATION

Rochester Institute of Technology (CGPA: 3.89) M.S Software Engineering **Expected** – Dec 2025

University of Mumbai (GPA: 3.00) B.E Information Technology Aug 2017 – June 2021

SKILLS

- **Languages:** Java, Python, C/C++, Go, SQL, JavaScript/TypeScript
- **Cloud & DevOps:** AWS (EC2, S3, Lambda, SQS), Terraform, Docker, Kubernetes, Azure DevOps, CI/CD Pipelines
- **Databases & Systems:** Distributed Systems Design, API Architecture, NoSQL (MongoDB, Neo4j, Firebase), PostgreSQL
- **Embedded Systems:** Linux, RTOS Concepts, Qt/QML, Firmware Development, Microcontrollers
- **Developer Tools:** Git, Jira, Confluence, Postman, Agile/Scrum Methodologies

EXPERIENCE

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

- Build and deploy high-throughput backend services to process and manage datasets exceeding 200 million records, reducing data ingestion latency by 30%.
- Engineered a lightweight SQL query engine in Python to enable complex ad-hoc analysis directly on large flat files, eliminating the need for database ingestion and accelerating data discovery by 50%.
- Developed predictive models using statistical analysis and machine learning to forecast key operational metrics, enabling proactive, data-driven decision-making for university departments.

Fresenius Medical Care | Embedded Software Engineer **Lawrence, MA| Jan 2025 – June 2025**

- Developed a fully automated testing application that validated embedded software and hardware drivers for critical-care medical devices, interfacing directly with drivers to generate detailed execution reports and increasing device reliability by 40%.
- Hardened system security by designing and deploying a Linux provisioning script to enforce least-privilege access, eliminating a class of potential security vulnerabilities during field servicing.
- Built interactive GUI interfaces in QT/QML, Flutter, and HTML/CSS/JavaScript to evaluate user experience, functionality, and accessibility for future device iterations.
- Worked on Upgrading device firmware to align with newer Boost C++ libraries to improve stability and patch vulnerabilities.

Excellus BCBS | Software Development Engineer (Intern) **Rochester, NY | Jun 2024 – Aug 2024**

- Collaborated and delivered the company's first automated regression testing tool for healthcare claims processing, reducing manual testing efforts by over 50%.
- Led the migration of internal repositories and CI/CD workflows to Azure DevOps, standardizing development practices and improving deployment frequency.

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

- Designed and automated over 500 regression tests for a major Canadian bank's REST and SOAP APIs, improving release velocity and reducing post-deployment defects by 25%.
- Built, tested, and deployed scalable RESTful services aligned with OpenAPI specifications, supporting high-load financial transaction systems.

PROJECTS

BudgetWise | GitHub **AWS (Lambda, DynamoDB), Terraform, Docker, Python**

- Engineered a serverless AWS budgeting tool with real-time analytics, using Terraform and Docker to automate infrastructure and enable repeatable, one-click deployments.

Airport Network Visualizer | GitHub **Neo4j, Cypher, JavaScript, HTML/CSS, GeoJSON**

- Developed an interactive visualization of 6,000+ global airport routes using Neo4j and implemented Dijkstra's algorithm to identify and display the shortest travel path.

Fraud Detection Pipeline | GitHub **Python, Scikit-learn, Pandas, Machine Learning**

- Designed an end-to-end ML pipeline to detect fraudulent job postings by processing unstructured data and deploying an SGD classifier optimized for precision/recall on an imbalanced dataset.

CERTIFICATIONS

- **Azure Fundamentals,** Microsoft link