

Khushali Samderiya

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Software Engineer with experience building scalable, reliable backend cloud services, including fault-tolerant APIs and distributed workflows. Strong computer science foundation with applied AI experience, seeking Software Engineering roles.

Skills

Languages: Java, Python, JavaScript, TypeScript, SQL, NoSQL, HTML5/CSS3

Backend & Web: React.js, Node.js, Flask, FastAPI, RESTful APIs

Cloud & Infra: AWS (Lambda, API Gateway, S3, CloudFront), GCP, Docker, Kubernetes, Jenkins, Git, CI/CD

Data & ML: MySQL, PostgreSQL, Redis, JDBC, TensorFlow, PyTorch, Scikit-learn, Hugging Face (LLMs), Keras, OpenCV

Work Experience

AI Software Engineer | Living Stones Foundation

Aug 2025 – Aug 2026

- Led backend architecture for the organization's payment system, improving payment reliability by 45% by building a PostgreSQL-backed transaction state machine with anomaly checks for stuck payments and failed webhooks.
- Reduced duplicate transactions by 75% by implementing idempotent payment APIs and authenticated webhook handlers, coordinating with frontend and data teams on retry and event handling.
- Reduced payment API latency by 30% by optimizing transaction queries and moving log classification, retry analysis, and reconciliation checks to asynchronous worker pipelines
- Improved payment debugging efficiency by building a diagnostics pipeline that classified webhook failures by error code, transaction state, retry count, and gateway response to surface root-cause patterns.

Graduate Research Assistant | Bioinformatics Lab, University of Colorado

June 2024 – May 2025

- Improved classification precision by 9% by building CNN pipelines with residual and attention-based architectures.
- Increased model accuracy by 12% through biological dataset augmentation and stratified K-fold validation.
- Reduced preprocessing runtime by 40% by reusing transformed datasets and eliminating redundant computation.

Software Engineer | Independent Consultant

Feb 2022 – July 2023

• Midaz Technocraft – Internal Operations Platform

- Built a full-stack internal operations platform (JSP/Java, MySQL), supporting ~\$120K annual cost savings, by automating inventory, order, and cash-flow workflows.
- Reduced average API response time by ~40% by adding Redis caching for frequently accessed data and using database transactions to prevent partial order update failures.
- Improved concurrent request handling by 30% by optimizing API endpoints, offloading non-critical work to an async task queue, and using thread pools with synchronization for thread-safe access

• Retail Startup – Serverless E-commerce Checkout

- Reduced cart abandonment from 45% to 15% by building a serverless checkout using AWS Lambda, API Gateway, PostgreSQL, and CloudFront.
- Improved release reliability through unit and integration tests covering API responses, payment failures, and order-state transitions.

• Apparel Startup – Payments & Order Lifecycle

- Reduced payment failures by 80% by rebuilding checkout workflows using AWS Lambda, React and API's
- Enabled real-time order tracking and automated refunds through a webhook-driven order state machine (initiated, pending, confirmed, failed, refunded)

Projects

TriModel Financial Analyzer | University of Colorado

Jan 2024 – Dec 2024

- Improved stock trend prediction accuracy to 84% by training time-series, technical, and BERT-based sentiment models.
- Built scalable data pipelines to collect, clean and align price data, indicators, and financial news for model training.
- Reduced training time by 30% by restructuring training workflows to reuse preprocessing outputs across experiments.

Real-Time Trading Analytics Platform | J.P. Morgan Chase

Sep 2021 – Oct 2021

- Reduced manual analysis time by 35% by developing real-time stock dashboards using WebSockets and RESTful APIs.
- Reduced system latency by 40% by optimizing data transformations through batching and distributed processing.
- Improved system responsiveness by 25% by refactoring Java services for concurrent request handling.

Education

University of Colorado, MS in Computer Science, CGPA: 3.8

Aug 2023 - May 2025

Courses: Data Structures and Algorithms, AI, NLP, Advanced Software Engineering, Software Design

St. Francis College for Women, BS Hons in Software Engineering, CGPA: 3.67

Jun 2018 - Dec 2021

Courses: Java, C, C++, Database Systems, Object Oriented Programming, Operating Systems, Software Architecture