

Moksh Aggarwal

Software Engineer – Enterprise Data & Personalization Platform

San Francisco, CA, United States | [LinkedIn](#) | [GitHub](#)

AI-native software engineer and recent M.S. graduate (May 2026) with 2+ years of enterprise experience building data pipelines, low-latency services, and evaluation harnesses for agentic AI systems. Focused on audit-ready agents for stateful workflows.

EXPERIENCE

Student Assistant, Student Wellness Center San José State University - Operate front-desk services across 8 residential communities, supporting hundreds of residents with high-volume, time-sensitive requests. - Use StarRez (housing management) and S2 (access control) systems to verify residency/access, log guest activity, and maintain accurate records for desk operations. - Execute access-control workflows (guest check-in/out, entry monitoring, building verification) to support a safe and secure residential environment. - Manage resource inventory + chain-of-custody (lockout and community items): check-out/return tracking, secure key handling, and storage organization.	Aug 2025 — May 2026 <i>San Jose, CA</i>
Software Engineer – Enterprise Data & Personalization Platform Tata Consultancy Services (TCS) Core engineer in a high-leverage pod modernizing a tier-1 client's platform. Built PySpark and Apache Kafka pipelines to ingest, normalize, and reconcile millions of daily events into a unified source of truth. Rewrote the core scoring layer into C++ microservices backed by Redis, dropping p99 latency from 52ms to under 15ms. Built a Shadow Mode deployment framework to replay live traffic against new models before production promotion.	Oct 2021 — Jun 2023 <i>India</i>
Industrial Trainee NATIONAL INSTITUTE OF ELECTRONICS & INFORMATION TECHNOLOGY (NIELIT) Training in field of Artificial Intelligence and Machine Learning	Jan 2021 — Jul 2021

EDUCATION

San José State University <i>Master's degree in Data Science</i> NumPy, Pandas (Software) and +14 skills	Aug 2024 — Jun 2026
Panjab University <i>Bachelor of Engineering - BE in Electrical, Electronics and Communications Engineering</i>	Jan 2017 — Jun 2021

PROJECTS

Long-running web agent with JSONL telemetry and HITL circuit breakers , Autonomous Agent & Evaluation Harness Built an autonomous web agent for long-running workflows. Early versions hallucinated DOM locators and entered infinite retry loops. Built a strict evaluation harness with structured JSONL telemetry and Human-in-the-Loop circuit breakers, plus idempotent tool calling for replay-safe execution. Caught context-window decay and logic bugs programmatically before human testers did.
Distributed classification system for financial anomaly detection , Financial Risk & Distributed Data Modeling (FDRPay) Built a full-stack distributed classification system to detect financial anomalies and mitigate risk across decentralized nodes. Focused on security, permissions, and compliance guardrails for sensitive transactional data.
Real-time audio-to-JSON dispatch system built at Berkeley AI Hackathon , Real-Time Edge Dispatcher (FirstResponder Relay) Shipped a 0-to-1 product from idea to production in 24 hours, winning the Berkeley AI Hackathon. Used OpenTelemetry to trace reasoning steps and monitor prompt context, converting ambiguous real-world audio into strict programmatic JSON responses.

CERTIFICATIONS

Programming Essentials in Python , Cisco Networking Academy	Jun 2021
Introduction to Blockchain Technology , Coursera	Oct 2020
Introduction to Augmented Reality and ARCore , Coursera	Aug 2020

SKILLS

Neo4j · Anomaly Detection · AWS Step Functions · DevOps · Distributed Applications · AWS CloudFormation · Data Pipelines · REST APIs · Data Science · PySpark · React.js · Microsoft Office · Apache Airflow · Kafka Streams · Apache Spark · PostgreSQL · Docker Products · AWS CodeDeploy · Cash Flow Forecasting · Real-time Data · Data Quality · SciPy · WAMP · 100% Financing · Orchestration · Technical Translation · Payment Systems · Continuous Integration and Continuous Delivery (CI/CD) · Tech Career Skills · Knowledge Graph-Based Recommendation · Next.js · Transaction Monitoring · Postman API · Language Skills · Autonomy iManage · Data Validation · Cross-functional Collaborations · AWS CodeBuild · NumPy · Machine Learning · Big Data · Scikit-Learn · Seaborn · Pandas (Software) · Hadoop · Snowflake · Microsoft Power BI · Tableau · Data Storytelling · Presentations · Agent Architecture · Evals & Verification · RAG · Tool Calling · Cursor · Claude Code · Python · C++ · TypeScript · FastAPI · Distributed Systems · SQL · Kafka · OpenTelemetry · JSONL Logging · Data Normalization & Reconciliation · Fintech/Risk Concepts · 0-to-1 Product Development · Idempotent APIs · Fault Tolerance · PyTorch · Redis · Playwright