

Parag Shah

Buffalo NY | <https://www.linkedin.com/in/parag-shah97> | 716-580-0037 | parag.shah97@gmail.com | [Portfolio](#)

Computing polymath with 4 years of experience delivering full-stack and AI-powered solutions in the Fintech & Healthcare domains, including an AI internship building GenAI capabilities for CRM platforms. Demonstrated impact across 10+ production releases, optimizing performance-critical systems. Skilled in developing solutions with Java, Python, and integrating LLM APIs (OpenAI, Claude) & ML models into enterprise platforms. Brings platforms to life with cost-efficient, Docker-based deployments on AWS.

EDUCATION

State University of New York at Buffalo

Master of Computer Science & Engineering, AI Specialization (GPA: 3.97/4.00)

New York

May 2025

Earned **Teaching Assistantship for Theory of Computation and Analysis of Algorithms** from a competitive pool of 300+ students.

Publication: Titled "Text Preprocessing & Comparative Study of Cosine Similarity & TF-IDF", published in the IJSREM. ([Paper](#))

WORK EXPERIENCE

Best Practical Solutions ([Link](#) | [Demo](#))

AI Engineer Intern

Buffalo, NY

Aug 2024 – Dec 2024

- **Reduced weekly ticket resolution time by 10+ hours by building a GenAI extension** for a CRM system, leveraging LLMs APIs (OpenAI, LLaMA) with zero/few-shot prompting, RAG for AI-based autosuggestions, using LangChain, Python, and Perl.
- Improved identification of priority issues by 50% through sentiment analysis and automated ticket summarization.
- Enabled language support across 18+ countries by integrating multilingual autocomplete and AI-driven response generation.

Moody's Analytics - TCS

Software Engineer II

New York

Mar 2021 – Jan 2024

- **Led fintech projects impacting 400K+ customers across 5 banks** by developing a Credit Risk and Investment Monitoring system with Java Spring Boot, PostgreSQL, AWS (backend), and ML modelling (XGBoost & LightGBM) for live trending data.
- Delivered 10+ production releases and **managed DevOps workflows across Dev, CI, UAT, and Prod environments** using Docker and Jenkins, with performance monitoring via Datadog.
- Collaborated with cross-functional teams to build a machine learning NLP model with 95% accuracy for analyzing financial records.
- Boosted KPI visibility and business insights 2x by **designing data models from a Redshift data warehouse and integrating Tableau dashboards** using SDKs for over 10M financial trend records.
- Accelerated testing and deployment process by 3x through test-driven development, achieving 80% unit-testing coverage with Junit & Mockito, comprehensive automation testing, peer reviews, and feature documentation.

TMB Thanachart Bank - TCS

Software Engineer I

India

Aug 2020 – Feb 2021

- **Boosted customer acquisition by 30% by launching a full-featured banking app** with E-KYC, payments, and investment modules, in collaboration with product and QA teams.
- Reduced developer effort by 50% and doubled component reusability by building 20+ UI components with Next.js & React.
- Enhanced SEO by 35% and cut API latency by 40% by **migrating a monolithic system to Java Spring microservices**, implementing swagger documented GraphQL and RESTful APIs, and enabling server-side rendering with Next.js.

SKILLS

Backend & Databases: Java, Spring Boot, Spring Security, Junit, MVC, PostgreSQL, Oracle, MongoDB, DynamoDB.

Frontend: TypeScript, JavaScript, Streamlit, Next.js, React, Zustand, Material UI.

Generative AI & ML Tools: Python (Scikit-learn, Pandas), FastAPI, NLP, PyTorch, RAG, LangChain, LLMs, VectorDB.

Deployment & Tools: Git, Linux, Docker, Kubernetes, Jenkins, CI/CD, AWS (EC2, ECS, S3, IAM), Redis, Okta (SSO), Kafka.

ENGINEERING PROJECTS

Localization Management System | FastAPI | Supabase | Next.js | ReactQuery | Zustand ([Link](#))

May 2025

- Designed a full-stack tool for a San Francisco-based startup to manage localization across multiple projects, supporting 10+ concurrent users with mutex locking, featuring CRUD and bulk import operations with open-source REST APIs.

E-commerce Web Application | Java | AWS | Docker | Kubernetes ([Link](#))

Jan 2025

- Engineered a scalable Spring Boot app simulating high traffic microservices architecture with API gateway (NGINX), Redis caching, OAuth (JWT), and CI/CD (Jenkins, SonarQube), reducing unauthorized calls by 99% and manual effort by 70%.

Lighthouse NGO | Hackathon | Healthcare | Machine Learning | LLM | React | Node.js | CI/CD ([Demo](#))

Sep 2024

- Empowered 10K+ underprivileged users to access health insurance by building a full-stack platform with an LLM-based chatbot, recommendation dashboard, and voice features, fine-tuned on 20K+ medical queries and 100+ public programs.

Custom ORM Framework | Low-Level design | Java Reflection | SQL | XML ([Link](#))

Jul 2023

- Architected a custom ORM framework like Hibernate, eliminating 90% of boilerplate code for Java engineers. Implemented annotation-based entity mapping, runtime SQL generation, configurable DB connections, custom validators & exception handlers.