RAJ SHAH

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EDUCATION

Syracuse University — Syracuse, NY
Master of Science in Computer Science (GPA – 3.81/4.0) — August 2022 – May 2024

Vishwakarma Institute of Information Technology — Pune, MH
Bachelor of Technology in Computer Engineering (GPA – 3.97/4.0) — August 2017 – May 2021

SKILLS

Languages: Python, TypeScript, JavaScript, Java, SQL, C#, HTML, CSS
Frameworks: Flask, FastAPI, .NET, React, Angular, Node.js, Next.js, Spring Boot, Hibernate
Databases: MySQL, MongoDB, PostgreSQL, SQLite, Firebase, DynamoDB, Amazon RDS, Redis
DevOps and Cloud: Git, Bitbucket, Docker, Jenkins(CI/CD), Kubernetes, AWS (S3, Lambda, SQS)
Tools and Platforms: Unix/Linux/Bash, RabbitMQ, Kafka, Swagger, Postman, Jira, Confluence
Certifications: Oracle Java Developer, IBM Sterling Order Management, SDLC, Agile Methodology

EXPERIENCE

Software Engineer Intern — June 2024 – Present
Syracuse University — Syracuse, NY

- Devised a microservices-based Library Booking Management System using **Next.js, Python, FastAPI, and MongoDB**; optimized **GraphQL** query batching to reduce server load, achieving 99.9% system uptime
- Built an AI-driven book recommendation engine by integrating **Scikit-learn's** collaborative filtering with **TensorFlow** neural networks, training on 50K+ user interactions, and improving recommendation accuracy by 25%
- Automated **CI/CD** pipelines by introducing parallel test execution**(PyTest)** and containerized builds using **Git and Jenkins**, reducing deployment time from 20 to 5 minutes

Software Engineering Intern — June 2023 – August 2023
Savana Inc — Malvern, PA

- Engineered a scalable B2C system using **Angular, C#, .NET, SQL, and AWS Lambda**, implementing asynchronous data migration streaming and parallel processing, accelerating snapshot migration by 25%
- Enhanced UI responsiveness and interactivity for 1M+ user data records using **Redux** state management, optimizing data flow and reducing redundant **RESTful API** calls, boosting rendering speed by 5x
- Deployed a high-performance **Redis** caching system, optimizing database query performance by 67% (reducing query time from 150ms to 50ms), ensuring faster data retrieval

Software Engineer — June 2021 – July 2022
Accenture — Pune, MH

- Refactored order fulfillment modules into microservices using **Java, Spring Boot, MySQL, and AWS**; introduced API Gateway load balancing and regional traffic routing to optimize latency, improving system efficiency by 35%
- Implemented a serverless order processing pipeline with **AWS Lambda and S3**, reducing processing time by 35% and enhancing scalability and fault tolerance across the system
- Streamlined backend testing pipelines with **Jenkins and SonarQube** by automating static code analysis, reducing bug-related incidents by 20%, and accelerating feature delivery to production

Software Developer — May 2020 – June 2021
DrPrax – New Age Health Management — Pune, MH

- Architected an EMR/EHR platform with **React, Node.js, Firebase, and AWS**, automating patient record management, improving treatment adherence by 15%
- Created an AI-driven symptom checker using **NLP**-based entity recognition and **LSTM** deep learning models, achieving 85% diagnostic precision across 100K+ patient records
- Integrated **OAuth 2.0 and JWT** authentication, reducing security incidents by 7% and safeguarding sensitive data for 300K+ prescriptions

PROJECTS

Kanban Board - Project Management System

- Developed a **MVC**-based Kanban board using **Java, Next.js, and SQL**, integrating automated status logging via **REST APIs**, enhancing project tracking efficiency by 30%
- Revamped data fetching workflow with **Redux**, reducing redundant requests by 30%, and optimized deployment using **Docker**, ensuring a smooth containerized deployment process

University Shuttle System

- Orchestrated the micro-service development of a University Shuttle system using **React, Python, Flask, and PostgreSQL**, optimizing passenger grouping via clustering algorithm, reducing average travel time by 25%
- Containerized the platform using **Docker and Kubernetes**, enabling auto-scaling to handle high traffic, reducing redundant API calls by 40%