Vatsal Kirtikumar Gandhi

📍 San Jose, CA ✉ vats.gandhi.83@gmail.com 📞 (408) 210-9488 in vatsalgandhi83

About

Detail-oriented software engineer pursuing an MS in Software Engineering at San Jose State University, specializing in backend development and cloud-native architectures, with project experience in fullstack applications. Skilled in building scalable, microservices-based systems using Java, FastAPI, and Node.js, with expertise in API design, containerized deployments (Docker, AWS ECS/ECR/Fargate), CI/CD pipelines, and observability with AWS CloudWatch. Strong foundation in data structures, algorithms, and Agile collaboration, with additional experience in modern frontend frameworks (React.js, TypeScript, HTML, CSS).

Education

MS in Software Engineering *Jan 2025 – Dec 2026 (Expected)*
San Jose State University, San Jose, CA *GPA: 3.85*
- **Coursework:** Enterprise Software Platforms, Software Systems Engineering, Enterprise Distributed Systems, Enterprise Application Development, Data Mining, Machine Learning

B. Tech in Computer Science and Engineering *Oct 2020 – May 2024*
Kalinga Institute of Industrial Technology, Bhubaneswar, Odisha, India *GPA: 3.94 (9.31/10)*
- **Coursework:** Computer Programming, Data Structures, Design and Analysis of Algorithms, Object-Oriented Programming, Compiler Design, High Performance Computing, Operating Systems, Database Management Systems, Web Development, Computer Networks, Cloud Computing, Big Data, Artificial Intelligence, Data Analytics, Statistics

Skills

Programming Languages: Python, Java, JavaScript, TypeScript, C++, Bash, HTML, CSS
Backend Systems: Distributed Systems, Microservices, Scalable, Event-Driven Architecture, API Design, High Availability
Frameworks & Libraries: FastAPI, Spring Boot, Node.js, Express.js, Flask, React.js, Material-UI
Databases: MySQL, PostgreSQL, MongoDB, DynamoDB
Cloud & DevOps: AWS (ECS, ECR, Fargate, EC2, Lambda, S3, CDK, IAM), Docker, Containers, GitHub Actions, AWS CodePipeline, CI/CD, Infrastructure as Code (IaC), Kubernetes (exposure), Swagger/OpenAPI
Observability: AWS CloudWatch (metrics, alerts), Tracing & Dashboards
Tools & Platforms: Git, IntelliJ, Postman, JIRA, JUnit
Other Skills: Agile Development, Ownership, Communication, Problem Solving

Experience

Software Engineering Intern 🔗 *Hyderabad, India*
Equal Identity Pvt. Ltd. 🔗 *Sept 2023 – Nov 2024*
- Developed and maintained scalable, production-grade, **microservices-based** backend services using **Python (FastAPI)**, delivering modular RESTful APIs for high-traffic, business-critical workflows.
- Built and deployed containerized services using **Docker → Amazon ECR → ECS Fargate**, integrated into CI/CD pipelines with **AWS CodePipeline** and **GitHub Actions**.
- Designed and deployed distributed, **event-driven data pipelines** with **AWS (SNS → Firehose → S3, Glue, Athena, Lambda)**, automating reporting workflows with a **90%** reduction in manual effort and enabling near real-time observability.
- Provisioned fault-tolerant, multi-environment cloud infrastructure using **Java and AWS CDK**, improving deployment consistency, scalability, and overall system resilience.
- Implemented proactive monitoring and alerting with **AWS CloudWatch**, reducing incident response times by **50%** and improving uptime for customer-facing services.
- Refactored latency-sensitive analytics API for multi-provider integration within a **microservices architecture**, applying OOP and modular design principles to achieve a **43%** reduction in average response time and simplifying future integrations.
- Collaborated in a high-velocity Agile environment, contributing to **sprint planning**, **code reviews**, and iterative releases; provided cross-team API documentation via **Swagger/OpenAPI**.
- Delivered end-to-end features by integrating backend services with frontend components in **React.js** and **TypeScript**.

Projects

TravelSwarm – AI-Powered Travel Planning Assistant
- Designed and deployed a **distributed, microservices-based backend** enabling intelligent itinerary planning with asynchronous user interactions.
- Built modular services in **Java (Spring Boot)** and **Python (Flask)**, orchestrated via **RabbitMQ**, persisted state with **PostgreSQL**, and containerized with **Docker** for scalability and portability.
- Implemented **CI/CD pipelines** for automated builds and deployments, improving iteration speed and deployment reliability.
- Tools Used: Java, Spring Boot, Python, Flask, RabbitMQ, PostgreSQL, Docker

SJ Hopes – Real-Time Shelter Coordination Platform
- Engineered a **fullstack, microservices-oriented** platform for shelters and support staff with **Java (Spring Boot)** and **MySQL**, enabling live task workflows, geolocation-based availability, and analytics dashboards.
- Delivered a polished, user-centric product under tight deadlines, **winning 2nd Prize at SJ Hacks Hackathon**, recognized for impact and scalability.
- Added observability via **application logging and performance metrics**, improving debugging and operational monitoring.
- Tools Used: Java, Spring Boot, React, Next.js, TypeScript, MySQL, Swagger/OpenAPI, Google Maps API

BookTable – Restaurant Table Booking System
- Developed a cloud-native, **microservices-based** booking system with **Java (Spring Boot)** and **MongoDB**, supporting high-concurrency real-time search, reservations, and admin workflows.
- Implemented **CI/CD pipelines** with **AWS CodePipeline** and **GitHub Actions**, plus autoscaling on **AWS (ECS, ECR, EC2, ALB, ASG, S3)**, ensuring consistent performance under varying workloads.
- Tools Used: Java, Spring Boot, ReactJS, MongoDB, AWS (ECS, ECR, EC2, ALB, ASG, S3), Docker, GitHub Actions