

Vrukshal Patel

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EDUCATION

Master of Science in Computer Science

Arizona State University, Courses: Distributed Systems, Software Testing, Software Security

Phoenix, USA

May 2025

Bachelor of Science in Computer Science

Nirma University, Courses: Data structures & Algorithms, Object-Oriented Design

Ahmedabad, India

May 2023

EXPERIENCE

Software Engineer

January 2023 – July 2023

Solution Analysts

- Implemented 40+ **REST APIs** in an **agile** environment to design a WhatsApp marketing channel to reach out to **1 million customers** utilizing **FAST-API, Python**, and **PostgreSQL**.
- Integrated **18 Meta Business Infrastructure APIs** into MVC architecture application for efficient messaging, enhancing WhatsApp message **delivery speed by 40%**.
- Facilitated **AWS EventBridge** and **AWS Lambda** to enable event-driven communication within the system for faster message processing, reducing message reply latency by 25 ms.
- Redesigned database schema according to **SQL optimization plan** and engineered the **customized indexing** on database, reducing average query time from **2 seconds to 1.2 seconds**.

Software Engineer

January 2022 – December 2022

Fortune Panel Systems

- Developed a full stack **IoT-based** data streaming system using **WebSocket**, securely transmitting machine data from **1000+** construction machines to a **PostgreSQL** database on a VPS.
- Contributed to the full **Software Development Life Cycle (SDLC)** of a high-performance backend developed with **Java, Spring-boot, and Maven**, using **MVC** architecture to design and implement **scalable API services**.
- Created a front-end dashboard and an **automated reporting tool** that generated customized PDF reports based on user-defined criteria with **TypeScript and Angular**, **saving 20+ hours per month** in manual reporting tasks.
- Containerized** the entire system using **Docker** for portability, then deployed it to **AWS EC2** instances, utilizing **Amazon RDS** for database management and configured **AWS CloudWatch** for system performance monitoring.

PROJECTS

Secure Messaging Microservices Architecture | *Spring Boot, Docker, Kubernetes, Kafka*

- Built microservices for authentication, messaging, upload, and notifications, supporting 10,000+ users.
- Leveraged JWT, WebSocket, and Kafka to enhance security, messaging, and media handling, reducing latency by 20%.
- Utilized ShadCN for building a dynamic and intuitive UI, improving user experience and interface responsiveness.
- Deployed via Docker, Elastic Kubernetes Service (EKS) following Devops practices, boosting deployment speed by 30%.

JobSucces.AI | *Firestore (NoSQL), React Native, Jenkins, AWS, Google APIs*

- Open-sourced a job application platform for candidates to apply and recruiters to manage listings and search candidates.
- Integrated firebase Google Authentication, AWS S3 for file storage, and Gemini API for resume analysis.
- Developed the frontend with React, ensuring a responsive and intuitive UI for both job seekers and recruiters.
- Implemented CI/CD with BitBucket and Jenkins for automated testing and deployment on AWS EC2.

Itinerary Sharing | *Spring Boot, React.js, Kubernetes, CI/CD, AWS, GCP*

- Built RESTful APIs to perform CRUD on travel itineraries with Java, Spring Boot, supporting 1000+ concurrent users.
- Used AWS Aurora and GCP GKE with autoscaling on latency metrics and integrated Flyway for database migrations.
- Automated CI/CD pipelines with CircleCI, cutting deployment time by 60%
- Achieved 85% code coverage with unit and integration tests; reduced bugs by 40% using SonarQube.

TECHNICAL SKILLS

Languages: Java, Python, C++, C#, JavaScript, TypeScript, HTML, CSS3

Frameworks: Spring Boot, Node.js, FastAPI, Angular, React, Express, NextJS, Django, Flask, Redux

Cloud/Deployment Tools: Git, Github, Docker, GCP, Azure, AWS, Kubernetes, Redis

Development tools: JUnit, Maven, Gradle, Visual Studio, Jira, Selenium, Version control, Linux, Unix, Shell Scripting

Big Data/Databases: SQL(MySQL, PostgreSQL, Oracle), NoSQL(DynamoDB, MongoDB), Neo4j, Kafka, Hadoop, Spark