Kalpesh Vala

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BRIEF SUMMARY

Self-motivated Computer Science Engineering student with strong programming skills in Java, Python, C++, JavaScript, and Go. Experienced in building full-stack applications with a focus on backend development and scalable system design. Proficient in frameworks like Spring Boot, Flask, Next.js, and familiar with modern web technologies such as ReactJS and Tailwind CSS. Currently exploring Kubernetes and the Spring ecosystem. Enthusiastic about solving real-world problems through hands-on projects and active participation in hackathons.

Education

Nirma University, Ahmedabad   *2022 – Present*
B.Tech. in Compute and Science and Engineering
CGPA: 8.20/10

GSEB (Gujarat Secondary and Higher Secondary Education Board), Gujarat   *2022*
Higher Secondary Education (Class XII), PCM
Percentage: 88.31%

GSEB (Gujarat Secondary and Higher Secondary Education Board), Gujarat   *2020*
Secondary Education (Class X)
Percentage: 87.67%

Experience

Fullstack Developer & Team Leader   *May – July 2025*
The Special Character Pvt. Ltd.

- **Spearheaded** the end-to-end development of a full-fledged e-commerce platform, leveraging Medusa.js for core commerce logic and Payload CMS for dynamic content management.

- **Engineered** key backend modules, including secure user authentication, comprehensive product lifecycle management, and custom CMS workflows to streamline administrative operations.

- **Established and enforced** a Git-based workflow, mandating pull request (PR) reviews to maintain high code quality, ensure branch integrity, and resolve merge conflicts effectively.

- **Mentored** team members on version control best practices and collaborative coding standards, significantly improving team efficiency and reducing code integration issues.

- **Led** the agile development cycle, overseeing sprint planning, task distribution, and release management to ensure timely and efficient delivery.

Projects

MyShops – E-commerce Backend System
Java, Spring Boot, REST API, JPA, Maven, Docker
GitHub: github.com/Kalpesh-Vala/my-shops

- Developed a scalable backend system for e-commerce with modular components: **Product**, **User**, **Cart**, and **Order** management.

- Followed layered architecture (Controller–Service–Repository) and implemented custom exception handling for reliability.

- Used JPA with Hibernate for ORM and Docker for containerized deployment and testing.

- Structured the codebase with Maven for maintainable, production-ready builds.

GoReactChat – Real-Time Chat Application

Go, Gorilla Mux, WebSockets, JSON, JWT Auth, ReactJS, Tailwind CSS, PostgreSQL, MongoDB, Redis, Kubernetes
GitHub: github.com/Kalpesh-Vala/go-react-chat

- Designed and developed a full-stack real-time chat platform with WebSocket-based live messaging and secure user authentication via JWT.

- Built a scalable backend in Go, using Gorilla Mux for routing and WebSocket handlers for real-time communication.

- Implemented multi-database architecture with PostgreSQL for user data, MongoDB for message storage, and Redis for caching and real-time user status tracking.

- Developed a modern frontend using ReactJS with Vite bundler and Tailwind CSS for a fast, responsive, and dynamic user interface.

SkyPost – Async Email & Messaging Microservice

JWT, WebSockets, Sanic, SMTP, Docker, Microservices, Python, PostgreSQL
GitHub: github.com/Kalpesh-Vala/SkyPost

- Developed a Sanic-based microservice providing secure email/messaging functionality with REST APIs and Web-Socket support for real-time notifications.

- Implemented JWT authentication for user management and role-based access control.

- Designed and optimised PostgreSQL database schema for users, messages, and attachments.

- Built support for async email sending via SMTP and file attachment handling (filesystem/S3).

- Containerised the application using Docker for consistent deployment across environments.

- Architected project with a modular structure (routes, models, services) to ensure scalability and maintainability.

Credit Card Fraud Detection System

Python, Flask, MongoDB, Isolation Forest
GitHub: github.com/Kalpesh-Vala/Credit-Card-Fraud-Detection
Live Demo: credit-card-fraud-detection-2oay.onrender.com

- Created a web application to detect anomalies in credit card transactions using the Isolation Forest algorithm.

- Enabled users to upload transaction datasets (CSV) and receive real-time fraud predictions.

- Utilized MongoDB to store transaction history and prediction logs for each user session.

Technical Skills

Languages: C/C++, Java, Python, JavaScript, Go, HTML/CSS
Frameworks/Libraries: Spring Boot, Flask, React.js, Tailwind CSS, Gin
Databases/Cache: MySQL, PostgreSQL, MongoDB, Redis
Tools & Technologies: Git, Docker, Kubernetes, JWT, REST APIs, WebSockets, Vite, Linux, Jenkins

Achievements

Awarded **Second Position** at the *National Research Symposium 2025*, Institute of Technology, Nirma University, for poster presentation on *Steganography Research: Techniques, Findings & Future Directions*. Conducted analytical study of steganographic methods, identified gaps, and proposed a roadmap for future advancements under the guidance of Dr. Lata Gohil.

Certifications

- Aspire Leaders Program – Modules 1 & 2: Leadership and Development

- Complete Kubernetes Guide – Udemy (Hands-on + Project)

- AWS Academy Graduate - AWS Academy Cloud Foundations

- Finalist – HackNuthone 6.0