

Yash Rathod

Vadodara , Gujarat | yashvrathod2004@gmail.com | +91-9106890193 | | LinkedIn | GitHub

Summary

Software Engineering student with strong proficiency in **C++ for algorithmic problem solving, optimization, and backend logic design**. Solved over **600 problems on LeetCode**, demonstrating expertise in **Data Structures, Algorithms, and Object-Oriented Programming (OOP)**. Hands-on experience in developing and deploying **scalable full-stack applications** using **Node.js, Express.js, React.js, and Firebase**. Skilled in **RESTful API development, database management (MongoDB, MySQL)**, and real-time communication with **Socket.io**. Passionate about building **reliable, high-performance systems** that deliver real-world impact, with a strong interest in backend engineering and healthcare technology.

Education

Parul University, B.Tech in Computer Science

Sept 2022 – June 2026

- CGPA: 8

Projects

AI Travel Planner

- **AI Travel Planner** – A full stack web application that generates personalized travel itineraries and hotel recommendations using AI integration.
 - Designed and implemented **RESTful APIs** using Node.js and Express.js to ensure secure data flow and efficient backend communication.
 - Developed dynamic and responsive user interfaces with **React.js (Hooks, Context API)** and **TailwindCSS**, adhering to modern UI/UX design standards.
 - Integrated **Google Places API** for fetching location data, ratings, and photos, ensuring seamless frontend-backend integration.
 - Managed **user authentication and authorization** with Firebase Authentication and handled **CRUD operations** via Firestore for persistent data storage.
 - Conducted **performance testing and debugging** using Chrome DevTools to enhance responsiveness and maintainability.
 - Collaborated in an **Agile environment**, participating in code reviews and documentation for frontend modules.
 - Deployed the application on **Firebase Hosting** with continuous deployment and scalability support.
 - **Technologies Used:** React.js, Context API, TailwindCSS, Node.js, Express.js, Axios, Google Places API, Copilot , Firebase Firestore, Firebase Authentication

Library Finder

- **Library Finder** – A Python-based system for efficiently locating books and subjects across library sections using multiple search criteria.
 - Developed both **console** and **GUI** applications using **Python (Tkinter)** and **Flask** for local and web-based access.
 - Implemented search functionalities by **Subject, Classmark, and Location** using structured **CSV datasets**.
 - Designed reusable data-loading and search modules with robust exception handling for missing or corrupted files.
 - Built a lightweight **Flask web app** integrated with dynamic templates for efficient query processing.
 - Applied **Object-Oriented Programming (OOP)** principles and modular design to ensure scalability and maintainability.
 - Conducted testing using sample data to verify search accuracy and optimize lookup performance.
 - **Technologies Used:** Python, Flask, Tkinter, HTML, CSV

CodeWiz

- **CodeWiz** – An AI-powered, full stack code editor enabling real-time developer collaboration and intelligent code assistance.
 - Built reusable and modular UI components using **React.js** and **Context API** for consistent state management and predictable data flow.
 - Developed backend services with **Node.js**, **Express.js**, and **Socket.io** to enable **real-time communication** and collaborative editing.
 - Integrated **AI-based code suggestions** using the **OpenAI API**, enhancing developer productivity and user engagement.
 - Applied **performance optimization** techniques, including React memoization and lazy loading, to improve UI efficiency.
 - Utilized **Mocha** and **Jest** for unit and regression testing to ensure application stability and reliability.
 - Participated in **code reviews**, documentation, and bug triaging alongside QA to improve maintainability and scalability.
 - Deployed the production build on **Vercel**
 - **Technologies Used:** React.js, Context API, Node.js, Express.js, Socket.io, WebRTC, CodeMirror, OpenAI API, TailwindCSS, Vercel

QuickSign

- **QuickSign** – A responsive front-end web application for secure digital signing with a modern, dark-themed UI.
 - Designed clean, accessible interfaces using **HTML**, **CSS**, and **JavaScript**, focusing on **UI/UX design** and responsive layout.
 - Applied strong **debugging and testing** techniques to ensure performance consistency across browsers and devices.
 - Collaborated in an **Agile development environment**, managing iterations and performance improvements.
 - Deployed the project using **Heroku**, ensuring reliability and ease of access.
 - **Technologies Used:** HTML, CSS, JavaScript, Heroku

TECHNICAL SKILLS

- **Programming Languages:** C++ (Primary – Advanced Problem Solving & Optimization), Python, Java, JavaScript (ES6+), TypeScript (Basics), C
- **Backend Development:** Node.js, Express.js, Django, RESTful API Design, Authentication & Authorization, Middleware, CRUD Operations, Error Handling, Server-Side Logic, Microservices Architecture
- **Frontend Development:** React.js, Redux, Context API, Next JS, HTML5, CSS3, Tailwind CSS, Bootstrap, Responsive Design, UI/UX Principles
- **Database Management:** MongoDB, MySQL, Firebase Firestore, Schema Design, Query Optimization, Data Modeling
- **Cloud & DevOps:** AWS (Basics), Firebase, Vercel, Cloud Deployment
- **Core Competencies:** Data Structures & Algorithms (C++), Object-Oriented Programming (OOP), Software Development Lifecycle (SDLC), Problem Solving, Design Patterns, Testing & Debugging, Performance Optimization
- **Tools & Version Control:** n8n, Git, GitHub, VS Code, Postman, npm/yarn
- **Methodologies & Practices:** Agile, Scrum, Test-Driven Development (TDD), Cross-Functional Collaboration, Security Best Practices

CERTIFICATIONS/TRAINING

- **Oracle Certified Foundations Associate, Java** — Oracle
Validated knowledge of **Java programming, Object-Oriented Programming (OOP), and problem-solving.**
- **Computer Networks and Internet Protocol** — NPTEL
- **Theory of Computation** — NPTEL

ACHIEVEMENTS

- Led a team to secure **12th rank globally** in **DevFest 2024**, contributing to open-source backend and full-stack development projects.
- **Finalist in Odoo Hackathon** (Top 250 out of 19,000+ participants) for developing a scalable application prototype under tight deadlines.
- Solved **600+ algorithmic problems** across **Data Structures & Algorithms (DSA), Dynamic Programming (DP), and Graph Theory** in **C++**, showcasing advanced problem-solving and optimization skills.
- Achieved **27,000+ XP** on **CodeStudio** and earned the **Ninja Dominator** title on **Coding Ninjas**; ranked **College Topper twice** on competitive coding leaderboards.
- Consistently apply **C++-based algorithmic thinking** in backend design and system optimization tasks across academic and personal projects.

EXTRA CURRICULAR ACTIVITIES

- Coordinated a technical workshop on **“Getting Started with Docker”**, covering core containerization concepts, hands-on setup, and real-world deployment workflows.

Web Links

- **GitHub** – github.com/Yash-2707
- **LeetCode** – leetcode.com/u/yashvrathod2004/
- **Codolio** – <https://codolio.com/profile/yashvrathod2004>
- **Coding Ninjas (CodeStudio)** – naukri.com/code360/profile/YashhhRathod
- **GeeksforGeeks** – [geeksforgeeks.org/user/yashvrathod/](https://www.geeksforgeeks.org/user/yashvrathod/)
- **CodeChef** – [codechef.com/users/yashvrathod200](https://www.codechef.com/users/yashvrathod200)