

VIKAS SALGUDE

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🌐 codeforces 📍 Pune, India

EDUCATIONS

Trinity Academy of Engineering Pune <i>B.E. Computer Engineering</i>	Aug 2023 - Jul 2027 CGPA : 9.45
Jawahar Navodaya Vidyalaya Changlang <i>Class 12th</i>	2022 Percentage : 84.2%
Jawahar Navodaya Vidyalaya Changlang <i>Class 10th</i>	2020 Percentage : 90%

PROJECTS

CodeSage - Production-Grade Codebase RAG Assistant 🐙 Github 🌐 Website • Engineered a syntax-aware code chunking system using Tree-sitter to parse Abstract Syntax Trees in JavaScript , TypeScript , and Python . Extracted logical code boundaries (classes, methods, functions) with associated documentation while maintaining semantic relationships, reducing brittleness in character-based text splitting. • Architected a retrieval-augmented generation pipeline by integrating Qdrant's HNSW vector indexing with Maximal Marginal Relevance re-ranking. Balanced semantic similarity and result diversity, optimizing query latency and minimizing redundant context in language model prompts. • Implemented local embedding generation using ONNX runtime with L2-normalized dense vectors. Eliminated external API dependencies and reduced vector database storage requirements through lower-dimensional representations without compromising semantic search accuracy. <i>Technologies / Tools Used : Node.js, Express, React, PostgreSQL, Qdrant, Tree-sitter, Transformers.js, BullMQ</i>	May 2026 - Present
InterviewX 🐙 Github 🌐 Website • Architected a secure and isolated code execution engine utilizing the Piston API and Node.js/Express , enabling real-time execution of 4+ programming languages with automated validation. • Engineered a scalable real-time communication infrastructure through Stream Video & Chat , facilitating high-fidelity 1-on-1 video interviews and synchronized messaging. • Implemented robust asynchronous task management using Inngest for background jobs and TanStack Query for efficient data fetching, significantly reducing server overhead. • Established a production-grade security workflow with Clerk authentication and specialized room-locking logic to restrict access to authorized participants. <i>Technologies / Tools Used : Node.js, Express, MongoDB, Inngest, Clerk, Stream API, Piston API, TanStack Query, React, Tailwind CSS</i>	Dec 2025 - Feb 2026
Terraquest 🐙 Github 🌐 Website • Developed a full-stack web application for travel accommodation listings with user authentication, CRUD operations, interactive maps for property locations, and a fully responsive interface. • Implemented secure session management, dynamic routing, and database integration for a seamless user experience. <i>Technologies / Tools Used : Node.js, MongoDB, HTML, CSS, Bootstrap, Map APIs, Express</i>	Sep 2025 - Dec 2025

SKILLS

Databases :	MongoDB, MySQL
Frameworks & Libraries :	HTML, CSS, React, Express
Languages :	Hindi, English
Programming Languages :	C++, JavaScript, Python
Soft Skills :	Adaptability, Teamwork, Problem Solving
Tools & Platforms :	Git, GitHub, VS Code

AWARDS & ACHIEVEMENTS

- **Solved** 500+ problems with a **Peak Rating** of 1740 on LeetCode; ranked in the top 15% of contest participants.
- **Secured** 1st Prize in the departmental coding competition, demonstrating high-speed problem-solving and algorithmic accuracy.
- **Earned** 4-Star Gold Badges in both C++ and Python on HackerRank, reflecting proficiency in language-specific syntax and data structures.
- **Achieved** 2-Star rating on CodeChef.