HARSHIL MAHESHWARI

mharshil1234@gmail.com | +91 7021950031 | harshilm.me | LinkedIn | GitHub | LeetCode

EDUCATION

Vellore Institute of Technology - B.Tech in Information Technology
Vellore, India | 2025-2029 | CGPA: 8.66

TECHNICAL SKILLS

Languages: Java, C++, Go, JavaScript, TypeScript, Python
Frontend: React, Next.js, TanStack Query, Tailwind CSS, Zustand
Backend & APIs: Go (Echo), Node.js, Express.js, GraphQL, REST APIs, Socket.IO, JWT, OAuth 2.0
Databases: PostgreSQL, MongoDB, Supabase, Redis, Prisma ORM
Tools & DevOps: Git, GitHub, Docker, Linux, Postman, Vercel, Cloudflare, k6, Judge0, CI/CD
Core CS: Data Structures & Algorithms, System Design, Database Design, Caching

EXPERIENCE

CodeChef-VIT Chapter

Technical Member - Competitive Programming & Web Development Domains | January 2026 - PRESENT

- Built a GraphQL-based GitHub organization management tool with bulk member invitations and configurable scoring rules.
- Tech Coordinator for CookOff 11.0, the chapter's contest, leading its platform development (see Projects).

PROJECTS

Cookoff - Competitive Programming Platform | GitHub

Next.js 16, TypeScript, Zustand, Go, Echo, PostgreSQL, SQLC, Redis, Asynq, Docker, TanStack Query

- Led development of a **full-stack contest platform** for **500+ live participants** across multi-tiered rounds with custom algorithmic problems, Scratch-style visual coding, and automated code execution.
- Built an **asynchronous code evaluation pipeline** in **Go and Judge0** using **Asynq and Redis** sets, coordinating out-of-band multi-testcase execution with a fan-out/fan-in pattern across workers.
- Built **real-time verdict delivery** by multiplexing **Redis Pub/Sub events** into in-memory Go channels and HTTP long-polling, so the server does not keep polling the database and uses fewer Redis connections.
- Hardened **database integrity** with **PostgreSQL row-level locking** and **sliding-window rate limiters**, and sustained a **99.83% request success rate** across **15,600+ requests during the live contest.**

CraveBuddy - Mood-Based Restaurant Discovery Platform | GitHub

Next.js 16, TypeScript, PostgreSQL, Prisma, Redis, Socket.IO, Zustand, Better Auth, Gemini API, Docker, Vitest

- Built a full-stack **Next.js 16** and **TypeScript** app where the **Gemini API** turns free-text cravings into restaurant and dish picks, checking every result against a **PostgreSQL** catalogue before saving it.
- Built **Mood Room**, a real-time group ordering feature with **Socket.IO**, covering 5 phases from cravings to final order, live chat, host tiebreak voting, and **PostgreSQL row locks** so concurrent votes stay correct.
- Built a **multi-restaurant cart** on **Upstash Redis** sessions (7-day TTL) with all-or-nothing updates through a **Lua script**, **Zustand** optimistic updates, and **Redis rate limiting**.
- Implemented **Better Auth** (Google OAuth, email sign-in) with **Prisma** on **Supabase**, plus shareable mood board links and guest board claiming on sign-in.

ACHIEVEMENTS

- Solved **500+ problems on LeetCode**, achieving a **Knight rating of 1860**, with proficiency in Dynamic Programming, Trees, Graphs, DFS/BFS, and Binary Search across varying difficulty levels.