

VANSH MEHANDRU

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Summary

Driven Computer Science undergraduate at SRM IST with a **9.7 CGPA**, specializing in full-stack development and backend engineering. Proven track record of architecting production-grade systems, delivering high-performance RESTful APIs, and contributing to open-source ecosystems.

Technical Skills

Languages: C++, Java, Python, SQL

Frontend: React, TypeScript, HTML, CSS, JavaScript, Tailwind CSS

Backend: Node.js, Express.js, RESTful API Design, JWT

Databases: MongoDB, MySQL, Mongoose

Core Concepts: Data Structures & Algorithms, OOPS, DBMS, Operating Systems

Tools & Platforms: Git, GitHub, Postman, VS Code, Vercel

Experience

GirlScript Summer of Code (GSSoC) Jul 2025 – Nov 2025
Open Source Contributor (Full-Stack) Remote

- Resolved **15+ production-level UI and functional defects**, improving codebase stability and reducing user-reported issues by approximately **10%** across targeted repositories.
- Optimized frontend performance and responsiveness by refactoring legacy modules, resulting in a **15% improvement in Lighthouse performance scores**.
- Streamlined collaborative development by managing **20+ Pull Requests** through structured Git workflows, ensuring **100% adherence**.

Aaruush, SRM IST Sep 2024 – Present
Team Outreach Committee Member Chennai, India

- Spearheaded national outreach campaigns across **20+ Tier-1 colleges**, driving a **5% increase in participant conversion** for one of India's largest technical fests.
- Delivered technical roadmaps and presentations to over **200+ prospective students**, achieving a **15% growth in event registrations** through targeted awareness strategies.
- Orchestrated cross-functional logistics and stakeholder communication, ensuring seamless synchronization between technical event leads and external institutional partners.

Projects

Namma Yatra – Tamil Voice Travel Planner | *Live* | *Repo* *React 19, Node.js, MongoDB, Gemini AI*

- Built and deployed a **full-stack AI travel platform** for Tamil-speaking users, live on Vercel with support for **3 travel modes** (flight, train, bus).
- Integrated **Google Gemini AI** for natural language query processing and **AviationStack + RailRadar APIs** for real-time travel data with fallback support.
- Implemented **JWT authentication**, rate limiting, and Helmet.js security hardening alongside automated **PDF ticket generation** with QR codes via PDFKit.
- Designed **MongoDB schemas** supporting booking history, user accounts, and multi-modal travel data at scale.

Emotion-Aware Recommendation System | *Python, HuggingFace Transformers, PyTorch, SQLite*

- Built a **7-agent multi-agent AI pipeline** – Observer → Emotion → Safety → Recommender → Feedback → Learning – classifying emotions across **7 categories** using DistilRoBERTa.
- Implemented **two-layer crisis detection** combining keyword regex and toxic-bert, with escalation routing to Indian mental health helplines (iCall, AASRA, Vandrevala).
- Fetched live content from **YouTube Data API v3** and **Spotify Web API** based on detected emotion, with SQLite storing full session history and per-emotion performance scores.
- Designed a **self-learning feedback loop** that accumulates user ratings across sessions and continuously improves recommendation accuracy over time.

Achievements

- **1st Place – AIWS Hackfest:** Won among **100+ participants** by developing a problem-solving software solution.
- Maintained a consistent **9.7 CGPA** while actively contributing to open-source and technical development programs.

Education

SRM Institute of Science and Technology
B.Tech in Computer Science and Engineering

Aug 2024 – May 2028
CGPA: 9.7 / 10.0