

YASHVANTH M U

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PROFESSIONAL SUMMARY

Results-oriented Developer and RVCE student with a track record of transforming concepts into deployed products. Specialized in Full-Stack Web Development, combining creative problem-solving and Artificial Intelligence to deliver user-centric applications. Dedicated to engineering robust, scalable solutions that solve real-world problems through innovative software design.

EDUCATION

B.E. in Information Science & Engineering RV College of Engineering, Bengaluru <i>Relevant Coursework:</i> Data Structures & Algorithms, DBMS, Operating Systems, OOP, Cloud Computing.	2023 – Present CGPA: 8.51
Class 12 (PCMB) Vidyanidhi PU College	2021 – 2023 93%

PROJECTS

trueProject: AI-Powered Academic Project management system | *React, FastAPI, PostgreSQL, FAISS, Google GenAI* [GitHub](#) | [Live Demo](#)

- Architected a project lifecycle system using **FastAPI** and **Pydantic** schemas to enforce **100% type safety** and data validation across API endpoints.
- Engineered a **FAISS** and **Sentence Transformers** plagiarism engine, performing high-dimensional vector similarity searches with **sub-millisecond latency**.
- Integrated **Google Gemini Pro** as an automated "LLM Judge" to process project abstracts, reducing faculty manual review time by **approx. 60%**.
- Built a secure **RBAC** system using **JWT authentication**, securing endpoints for **3 distinct user roles**.

Gram Sahayak: Digital Governance System | *FastAPI, MongoDB (Async), React, AWS S3* [GitHub](#) | [Live Demo](#)

- Developed a high-throughput backend using **Motor (AsyncIO)**, leveraging non-blocking I/O to handle **1000+ concurrent requests**.
- Engineered a geospatial dashboard using **Leaflet.js** and **Turf.js**, rendering interactive infrastructure maps with **<100ms load times**.
- Integrated **OpenRouter LLM API** to analyze grievance text, automating sentiment classification and routing for **faster official response**.
- Implemented **i18next** for bi-lingual support and **AWS S3** presigned URLs to securely manage **user-uploaded evidence media**.

Network Navigator — Pathfinding Visualizer | *Next.js, TypeScript, Shadcn/UI, React Flow* [GitHub](#)

- Engineered an interactive topology editor using **React Flow** to render and simulate routing states for **50+ nodes**.
- Implemented **Dijkstra's and Adoptive algorithms** with a step-by-step visualizer, reducing comprehension time through real-time state tracking.
- Developed a live analytics dashboard using **Recharts** to monitor **Latency, Throughput, and Packet Loss** in real-time.
- Architected a global state management system using **React Context API**, synchronizing simulation logic across **10+ UI components**.

TECHNICAL SKILLS

- Languages:** Python, JavaScript, TypeScript, SQL, HTML5/CSS3, C++
- Frontend & UI:** Next.js, React.js, Tailwind CSS, Shadcn/UI, React Flow, Leaflet.js
- Backend & Core:** FastAPI, Node.js, Express, WebSockets, Motor (AsyncIO), RESTful APIs
- Databases:** PostgreSQL, MongoDB, FAISS, Redis, Firebase
- AI & Machine Learning:** Google Gemini API, OpenRouter API, Sentence Transformers, Scikit-learn
- Infrastructure & Tools:** AWS (S3, EC2), Docker, Git/GitHub Actions, Linux, Postman

ACHIEVEMENTS & CERTIFICATIONS

- National Finalist, Hackfest (NMAMIT):** Placed in **Top 5** out of 1600+ participants in a 36-hour national hackathon.
- Big Data Computing (NPTEL):** Elite + Gold Medal (Top 5% Topper) with 91% score | [Certificate](#)
- Data Science for Engineers (NPTEL):** Elite + Silver Medal with 81% score | [Certificate](#)
- GCP Cloud Arcade:** Completed Google Cloud Skills Boost — [Certificate](#)