M. VIGHNESH PRASAD

Computer Science Undergraduate | Software Engineering Intern Candidate

Kurnool, Andhra Pradesh | +91 8309877916 | vighneshprasad12@gmail.com

LinkedIn | GitHub | Portfolio | LeetCode

PROFESSIONAL SUMMARY

Computer Science undergraduate with strong foundations in data structures, algorithms, and systems engineering. Experienced in building scalable backend systems, stateless execution architectures, and efficient retrieval pipelines, delivering measurable improvements in latency, performance, and compute cost. Proven ability to own features end-to-end and ship reliable software under real-world constraints.

TECHNICAL SKILLS

Languages: JavaScript (ES6+), Python, C++, HTML5, CSS3
Frontend: React.js, Next.js, Redux Toolkit, Tailwind CSS
Backend & APIs: Node.js, Express.js, RESTful APIs, Authentication & Authorization
Databases: MongoDB, PostgreSQL (Supabase), MySQL, Oracle DB
Systems & Tools: Redis, Git, Linux, Postman, VS Code
Core Concepts: Data Structures, Algorithms, System Design, Scalable Systems, Caching

PROJECT EXPERIENCE

E-Commerce Platform | Project Lead
Jul 2025 – Oct 2025

Indian Institute of Information Technology, Kurnool

- Led a 4-member team to design, build, and deploy a full-stack e-commerce platform, owning architecture from database schema to API contracts.
- Implemented 20+ REST APIs enabling inventory management, geo-based discovery, order lifecycles, and role-based workflows using Node.js and Express.
- Ensured transactional consistency using PostgreSQL and implemented secure authentication with enforced RBAC and OTP-based delivery verification. reordering workflows.

Studify (Multimodal RAG Chatbot)

- Built a multimodal academic assistant supporting text, PDFs, diagrams, and handwritten notes, achieving 83.84% answer accuracy.
- Designed dense-embedding retrieval with cross-encoder re-ranking, improving long-form response accuracy to 88.64%.
- Reduced end-to-end latency from 2.5s to 1.3s using cache-aware retrieval and adaptive query routing.

Online File Management System

- Built a Google Drive–like system with hierarchical folders, full CRUD operations, bulk actions, and a system-wide Recycle Bin supporting concurrent access.
- Developed a sandboxed in-browser code runner for 5+ languages with enforced isolation and resource constraints.
- Ensured secure sharing via expiring tokens, storage analytics dashboards, and an AI-powered file summarizer integrated using Gemini.

CodeBuddy

- Developed a competitive coding platform used by 10+ students to practice 20+ algorithmic problems.
- Designed stateless, sandboxed execution pipelines for 5+ languages using Monaco Editor and Judge0.
- Improved performance and consistency using Redis caching across 100+ code submissions.

EDUCATION

Indian Institute of Information Technology Design and Manufacturing, Kurnool
B.Tech in Computer Science and Engineering (2023–2027), CGPA: 8.6 / 10

Sri Chaitanya Junior College
MPC | JEE Percentile: 97.6%

ALGORITHMIC & COMPETITIVE PROGRAMMING

- Solved 500+ DSA problems across LeetCode and GeeksforGeeks.
- LeetCode Rating: 1800+.
- CodeChef: 3 star | Participated in 20+ contests.

CERTIFICATIONS

- Infosys springboard:(AI, JS, Computer Vision), IIT Bombay:(Python, C , Linux) , Accenture Job Simulation