

VANSH GUPTA

Mysuru, Karnataka | vanshg917@gmail.com | +91 88876 04910 | [linkedin.com/in/vansh917/](https://www.linkedin.com/in/vansh917/) | github.com/vansh917917 | vansh917.me

EDUCATION

B.E. in Information Science and Engineering - *The National Institute of Engineering, Mysuru (2024-2028) | CGPA: 8.51/10*

Relevant Coursework: Data Structures and Algorithms, Advanced Java, Design and Analysis of Algorithms, Graph Theory, Operating Systems, Database Management Systems

TECHNICAL SKILLS

Programming Languages: Java, Python, JavaScript, TypeScript, C

Frontend: HTML5, CSS3, JavaScript, TypeScript, React.js, Progressive Web Apps (Service Workers)

Backend: Flask, REST APIs, Cloudflare Workers, Cheerio (Web Scraping)

Databases and Cloud: MongoDB Atlas, MySQL, SQLite, Firebase (Auth, Realtime DB, Firestore)

Tools and Developer Platforms: Git, GitHub, Linux CLI, NPM, Postman, Wrangler CLI

Deployment and Cloud Platforms: Vercel, Netlify, Render, Railway

Generative AI: Groq API, Ollama, LLM Streaming (NDJSON/SSE), Prompt Engineering

Desktop and Application Architecture: Electron, Win32 API (ctypes), IPC Architecture, Zustand, Zod, Drizzle ORM

Computer Science Fundamentals: Data Structures and Algorithms, Object-Oriented Programming

PROJECTS

NIEdge - Student Academic Resource Platform (*August 2025 - April 2026*) | *HTML, CSS, JavaScript, Firebase Database, Cloudflare Workers* | niedge.vercel.app

- Engineered a full-stack academic platform serving 1,500+ users and 30,000+ page views, using a serverless Cloudflare Workers API gateway and Cheerio-based scrapers to securely synchronize real-time college portal data.
- Built an offline-first PWA using Service Workers for instant asset caching, along with a sandboxed in-browser programming playground that lets students test code without a backend.

Alpha Engine X - Algorithmic Stock Market Simulation Platform (*March 2026 - May 2026*) | *Python, Flask, React.js, MongoDB Atlas, Firebase, Groq API* | alphaenginex.vercel.app

- Built a concurrent trading platform with real-time price updates every 2 seconds across 15 companies, using atomic MongoDB transactions, demand-driven volatility modeling, rate limiting, and duplicate-order prevention for concurrent trading operations.
- Architected a scalable Flask backend using Blueprints and a layered architecture (routes -> services -> repositories), backed by a 7-collection MongoDB schema with admin audit trails, automated P&L calculation, and brokerage fee logic.

Lunar - AI-Powered Remote Windows Management Agent (*August 2026 - Present*) | *Python, python-telegram-bot, Groq API, SQLite, OpenCV, asyncio* | lunar.vansh917.me

- Engineered an asynchronous remote Windows management agent with modular command routing and Groq LLM tool-calling, implementing multi-key failover for natural-language system control and automation.
- Implemented a defense-in-depth security architecture with single-user authentication, two-step confirmation gates for destructive actions, path-traversal-safe file sandboxing, and zero arbitrary shell execution, alongside real-time MJPEG live streaming and OpenCV-based webcam surveillance capture.

ACHIEVEMENTS

- Selected for Smart India Hackathon 2026 (College Level) - BharatResQ:** Built the full-stack prototype for AI-based landslide risk monitoring in the Northeast Region of India.
- 3rd Rank, VVCE National Hackathon (FinTech Category, 60 teams) - CrediGraph:** Built a credit risk platform (Python, Streamlit) predicting company default scores via 4 ML Models across 25+ ratios like Altman Z-Score, with live data via Google Finance API - 88-95% accuracy.