Avneet Singh Kapoor

Full-Stack Developer — Cloud + AI Enthusiast — CSE @ VIT (2026)

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EDUCATION

Bachelor of Technology in Computer Science and Engineering — Vellore, Tamil Nadu
Vellore Institute of Technology — Expected Graduation - July 2026 — *Current GPA: 8.45*

Grade XII CBSE — Bangalore, Karnataka
The Amaatra Academy — *Percentage: 91.4*

Grade X CBSE — Bangalore, Karnataka
New Horizon Gurukul — *Percentage: 90.8*

PROJECTS

Algo-Analyser 🔗 | *Next.js, TypeScript, PostgreSQL, Prisma,Gemini AI, Chakra UI, Three.js*   Aug 2025

- Collaborated with another developer to engineer a **full-stack AI-driven platform** for structured storage, retrieval, and analysis of solved programming problems
- Leveraged **Gemini API** to perform **Big-O complexity analysis**, generate **readable pseudocode**, and produce **natural language explanations** of algorithm performance
- Implemented a **PostgreSQL**-backed repository with **Prisma ORM**, supporting **domain and algorithm based filtering**, indexed retrieval, and user-authored notes
- Developed an **interactive analysis dashboard** featuring **flashcard-based revision**, **proficiency distribution pie chart**, and **GitHub-style activity heatmaps**
- Created **3D visualizations** using **Three.js** for enhanced data interpretation, and built a **responsive, dark-mode UI** with **Chakra UI** and **Framer Motion**
- Implemented **secure authentication** via **NextAuth.js**, optimized query performance for analytical workloads, and deployed the application on **Vercel**

DevRecall 🔗 | *Next.js, Typescript, tRPC, LangChain, Prisma, PostgreSQL, Tailwind, Firebase*   July 2025

- Built a **full-stack AI tool** that processes **GitHub repositories** and enables **semantic Q&A over code** using **Gemini embeddings** and **LangChain**
- Implemented an **asynchronous processing pipeline** with **rate-limit-aware GitHub integration** and **Firebase** file uploads
- Enabled **AI-powered Q&A** over both **source code** and **meeting transcripts** using **vector search** in **PostgreSQL**
- Developed a **modern, responsive UI** with **React**, **Tailwind CSS**, and **React Query** for server-state management
- Implemented **secure authentication**, **protected routing**, and deployed on **Vercel** with **server-streamed AI responses**

Formula-1 Dashboard 🔗 | *MERN Stack, Next.js, FastAPI, NumPy, Matplotlib, AWS*   Oct 2024

- Developed a **full-stack web application** providing comprehensive Formula 1 data, including **real-time updates**, **historical statistics** from 1950 onwards, and advanced race analytics
- Engineered a **dual-backend system** with **Node.js** for core functionalities and a Python-based **FastAPI** for serving complex **data visualizations**
- Implemented a **responsive and interactive frontend** using **Next.js** and **React**, ensuring a seamless user experience across all devices
- Integrated external APIs (**Ergast**, **FastF1**) and created dynamic data visualizations (**Matplotlib**, **Seaborn**) to display complex race analytics
- Implemented secure **JWT-based authentication** and deployed the multi-service application on **Vercel** and **AWS EC2**

CERTIFICATIONS

AWS - Solutions Architect Associate 🔗

IBM Applied DevOps Engineering Professional Certificate

Machine Learning Specialization 🔗

Google Cybersecurity Specialization 🔗

The Complete JavaScript Course - Udemy 🔗

Postman API Fundamentals Student Expert 🔗

TECHNICAL SKILLS

Languages: C++, TypeScript, JavaScript, Python, Java, C, SQL, R, HTML, CSS
Frameworks and Libraries: React, Next.js, Node.js, Prisma, tRPC, Tailwind, FastAPI, Pandas, NumPy, Matplotlib
Databases: PostgreSQL, MySQL, MongoDB, (Basic) Oracle
Testing & Automation: PyTest, Selenium, Postman (API Testing)
Cloud & Deployment: AWS, Vercel, Firebase
DevOps & CI/CD Tools: Git, GitHub, GitHub Actions, Jenkins, Docker, Kubernetes
Other Skills: Linux, REST API Design, Microservices Architecture, Agile/Scrum, Software Development Life Cycle (SDLC)
Relevant Coursework: Data Structures and Algorithms, Design and Analysis of Algorithms, Object-Oriented Programming, Data Privacy, Software Engineering, Database Systems, Computer Architecture, Computer Networks, Cloud Computing, Artificial Intelligence

LEADERSHIP & EXTRACURRICULARS

- Model United Nations (2x Participant) — Represented countries in committees; honed structured communication, negotiation, and public speaking skills.

- Hackathon Organizer (DevSoc Annual Hackathon, VIT) — Supported event logistics and participant coordination for 300+ participants, ensuring smooth execution.

- Trinity Grade 6 Drummer — Performed in multiple concerts, developing discipline, teamwork, and focus under pressure.