

# Aadish Vikram Chakravorty

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## Summary

Software Developer with strong fundamentals in full-stack development, clean code, and problem-solving. I turn ideas into fast, reliable solutions and enjoy simplifying complex problems. Known for quick learning, consistency, and ownership, with hands-on experience from real projects and competitive coding.

## Education

**Vellore Institute of Technology – Bhopal**

Sep. 2022 – Expected 2026

*Bachelor of Technology in Computer Science and Engineering*

**Coursework:** Data Structures and Algorithms, Computer Networking, Operating Systems, Multi-Threading, Database Systems, Object-Oriented Programming, Digital Logic Design

## Experience

**Bluestocks**

Mar. 2025 – May 2025

*Software Developer – Intern*

*Pune, India*

- Architected a scalable full-stack IPO analytics platform using **React.js** and **Django**, processing real-time financial data for 20+ active IPOs.
- Designed and standardized **8 RESTful API** endpoints using **Django REST Framework (DRF)** to efficiently serialize complex datasets for frontend consumption.
- Implemented a data-driven interface with **Chart.js**, optimizing data visualization which reduced user comparison time by an estimated **15%**.
- Deployed the application using **Docker** containerization on **AWS EC2**, establishing a CI/CD workflow for continuous integration and feedback.

## Projects

**Codex Visualizer** | Next.js, Node.js, Socket.io, MongoDB

[GitHub](#)

- Developed a real-time developer tool to visualize asynchronous code execution, utilizing **WebSockets** to reduce debugging latency by **40%**.
- Constructed a scalable execution engine using **Node.js** to parse and process user code securely, implementing **sandboxing** to prevent unsafe operations.
- Deployed the full-stack architecture on **Vercel** and **Render**, achieving **99.9% uptime** and handling concurrent user sessions efficiently.

**Synapse** | Next.js, FastAPI, Pinecone, OpenAI/Ollama

[GitHub](#)

- Built a spatial knowledge management system where content is auto-organized on an infinite 2D canvas using **Vector Embeddings** and clustering algorithms.
- Engineered a multi-modal ingestion pipeline (Text, Audio, PDF) using **Node.js** streams and **LangChain** to parse and index unstructured user data in real-time.
- Implemented a **Force-Directed Graph algorithm** on the frontend to dynamically render connections between thousands of nodes without performance lag.

**FluxNode** | React, IndexedDB, WebSockets, CRDTs (Yjs)

[GitHub](#)

- Architected a "Local-First" sync engine using **IndexedDB** and **Service Workers**, enabling seamless offline editing and data persistence.
- Designed a conflict-free synchronization using **CRDTs (Yjs)** to ensure mathematical consistency across distributed clients.
- Optimized an UI pattern for 0ms latency interactions, managing background reconciliation queues to sync server state.

## Skills

**Programming Languages:** C++, Java, Python, HTML5, JavaScript (ES6+), TypeScript

**Frameworks & Libraries:** React, Next.js, Vite, Express.js, Tailwind CSS, Redux, Flask

**Tools & Technologies:** Git, GitHub, Docker, AWS (EC2, S3), Linux/Bash, Postman, IntelliJ IDEA, VS Code

**Backend & Security:** RESTful APIs, WebSockets, JWT, OAuth 2.0, Microservices, Service Workers

**Database and AI:** Supabase, Firebase, PostgreSQL, MySQL, IndexedDB, Vector DBs (Pinecone), LangChain

**Soft Skills:** Team Leadership, Cross-Functional Collaboration, Ownership, Agile Development, Analytical Problem Solving, Communication

## Certifications

- AWS Certified Solutions Architect (2025)** – Associate: Validated expertise in designing scalable, distributed systems on Amazon Web Services (AWS).
- Salesforce Developer Certification (2025)** – Certified in building custom applications and managing backend logic within the Salesforce ecosystem.

## Achievements & Leadership

- Hacksagon Hackathon (2025)** – Recognized as a finalist among over 600 teams for developing a smart home automation system with advanced IoT integration.
- National Science Day (2024)** – Won 1st place at the National Science Day competition with a Smart Home Automation prototype showcasing innovative IoT applications.
- Core Web Team Member, Data Science Club (2024)** – Optimized the club's official platform by implementing **Next.js** frontend components and enhancing backend performance using Node.js.
- Head Boy, Central Hindu Boys School (2021)** – Elected to lead a student body of 2,300+ students, coordinating large-scale academic initiatives and serving as the primary liaison between faculty and students.