Vaidik Saxena

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Portfolio | GitHub | LinkedIn | Codeforces | CodeChef

EDUCATION

Indian Institute of Information Technology, Lucknow Lucknow, India
B.Tech in Computer Science; CGPA: 8.63/10 Aug 2024 - May 2028

ACHIEVEMENTS

- **ICPC 2025 Prelims – AIR 167** Secured All India Rank 167 among 10,000+ participants nationwide.
- **CodeRush – AIR 45** Secured All India Rank 45 at IIIT Gwalior.
- **Codeforces Expert** Peak Rating 1731 | Profile
- **CodeChef 3 Star** Peak Rating 1627 | Profile
- **MetaCall Contributor** Def-use dataflow extraction for JS/TS/TSX in Rust (meta-ast PR #56).
- **Flipkart GRiD 8.0 Semifinalist** Selected among top teams nationwide in Flipkart's hackathon.
- **Hackofiesta 6.1 Winner** National Web3 Hackathon (Apr 2025).
- **Hack4Good by Notion Winner** Built impactful solutions in a state-level hackathon competition.
- **INSPIRE Scholar** Awarded by the Department of Science and Technology (Govt. of India) for top 1% academic performance in Science stream.

TECHNICAL PROJECTS

- **VultureDB** – AI-Powered In-Memory Database Engine | *C++, FastAPI, Gemini API, LangChain*
  - **Built:** Built a modular C++ in-memory database featuring B+ Tree indexing, learned indexes, and AI-powered natural language querying.
    ·Performance: Implemented learned indexes achieving **2× faster lookups** and **50% lower memory usage** .
    ·NLQ: Built a FastAPI + LangChain pipeline for natural language database queries.
- **CodeView** – Collaborative Coding Interview Platform | *React.js, Node.js, Socket.io, WebRTC*
  - **Built:** Built a real-time coding interview platform enabling synchronized code editing and live video communication.
    ·Real-Time Collaboration: Engineered low-latency synchronized editing using **Socket.io** and scalable backend APIs with
    · **Node.js** .
    ·Live Video Integration: Integrated peer-to-peer video/audio communication using WebRTC, improving remote interview
    · experience.
- **FinBot** – AI-Driven Real-Time Stock Analysis Platform | *Next.js, FastAPI, Gemini API, LangChain, WebSocket*
  - **Developing:** Developing an AI-driven real-time stock analysis platform integrating LLM-based portfolio insights and TradingView visualization.
    ·AI Integration: Integrated Gemini API with **LangChain** to generate intelligent financial insights, portfolio summaries, and
    · stock analysis in real time.
    ·Full-Stack Development: Built scalable backend services using **FastAPI** and **WebSockets** , alongside responsive
    · dashboards in **Next.js** and Tailwind CSS.

EXPERIENCE

Phinance
Web Developer Intern Remote
· **Real-Time Systems:** Replaced polling with a WebSocket-based architecture, reducing redundant API calls by ~85% Nov 2025 - Feb 2026 and improving real-time responsiveness.

Axios – Technical Club, IIIT Lucknow
Overall Coordinator Lucknow, India
· **GCP Management:** Managed the production infrastructure of the official IIIT Lucknow website (iiitl.ac.in) Aug 2025 - Present
· **Auto Scaling:** Configured autoscaling on Google Compute Engine to ensure high availability and efficient resource usage.

TECHNICAL SKILLS

- **Core Subjects:** Data Structures & Algorithms, Object-Oriented Programming (OOP), Operating Systems, Computer Networks, Database Management Systems, Theory of Automata, Compiler Design
- **Languages:** C++, Java, Python, JavaScript, TypeScript, SQL
- **Web Development:** React.js, Next.js, Node.js, Express.js, FastAPI, REST APIs, WebSocket, WebRTC
- **AI/ML:** LangChain, LangGraphs, LLMs, TensorFlow, PyTorch, Scikit-learn
- **Tools:** Docker, Git, Firebase, MySQL, Postman, MLflow, GCP