Shubham Jha

GitHub — LinkedIn — LeetCode — Codeforces

Education: B.E. in Information Technology, Vivekanand Education Society's Institute of Technology (2022–Present), CGPA: 9.35 / 10

Experience

Software Development Engineer Intern   **Feb 2025 – Mar 2025**
AudioPod AI — Remote   *React.js, Python, TypeScript*
- Built functional UI components using **React**.
- Contributed backend features in **Python**, including error notification systems.

Projects

Interactive Engineering Portfolio | *React, TypeScript, Tailwind, Radix UI, Node.js*   **Live — GitHub**
- Engineered a high-performance **Canvas starfield and constellation renderer** using vector physics and a custom hook optimized for mobile performance.
- Designed a **custom useDrag hook** separating drag and click intent while resolving pointer conflicts with Radix UI controlled components.
- Deployed **serverless middleware with caching** to aggregate GitHub/DSA metrics and built an accessible contact pipeline using Radix Forms and Nodemailer.

Secure Browser-Based HD Web3 Wallet | *React, TypeScript, Web Crypto API*   **Live — GitHub**
- Built a client-side **HD Web3 wallet** enabling seed generation, import, and multi-account management without backend infrastructure.
- Implemented **AES-GCM encryption with PBKDF2** to securely persist wallet data while keeping cryptographic keys only in runtime memory.
- Designed synchronized in-memory and encrypted persistence with **on-demand decryption** to minimize secret exposure during wallet operations.

Open Brain | *React, TypeScript, Node.js, Express, MongoDB, JWT*   **GitHub**
- Developed a full-stack notes and link platform supporting public/private content sharing with scalable frontend architecture.
- Implemented secure JWT authentication and CRUD workflows using MongoDB and Mongoose.
- Integrated vector search enabling contextual semantic document retrieval.

Micrograd Engine | *Python, OOP, Neural Networks*   **GitHub**
- Reimplemented a minimal automatic differentiation engine modeling computation graphs and gradient propagation.
- Built neural networks with manually implemented forward and backward passes to understand backpropagation.

Technical Skills

Languages: Java, JavaScript, Python, TypeScript, SQL

Frameworks: React, Next.js, Node.js, Express, Tailwind

Databases: MongoDB, PostgreSQL

Leadership / Extracurricular

CSI, VESIT — Operations Officer   *Nov 2023 – May 2025*
- Conducted DSA mentorship sessions for 100+ juniors.
- Secured Garnier as a sponsor through corporate outreach.

Achievements

Competitive Programming: Codeforces 1200+, LeetCode 1840+, 900+ problems solved.

Winner, Genesis Hackathon among 500+ registrations for innovative technical solutions.

Winner Campus to Corporate (conducted by ISTE VESIT).

Second Runner-Up in the Coding Ninjas DSA Contest (150+ participants).

Winner, AI Council College Ideathon.