Tanishka Solanki

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Profile Summary

Technically driven Computer Science student with experience building real-time collaborative systems and performance-optimized web applications. Skilled at breaking down complex problems, defining scalable solutions, and executing features end-to-end. Interested in Product Management with a focus on user impact, prioritization, and data-informed decision making.

Product and Technical Skills

Product & Execution: Requirement Gathering, Product Lifecycle Understanding, Risk identification
Languages: C++, JavaScript, TypeScript

Frontend: React, Next.js |**Backend:**Node.js, Express, RESTful APIs,

Databases & Tools: MongoDB, MySQL,Terraform

Other skills: Agile mindset,Stakeholder communication,Cross-functional teamwork

Experience

Secure E- Solutions Private Limited – *Front-End Developer*   Oct. 2025 – Dec. 2025
Noida

- Developed and enhanced the company's main website by leveraging Next.js's Static Site Generation (SSG) & image optimization, improving page performance by 30% and delivering a smoother UI.
- Worked closely with the engineering team to facilitate the company's cloud migration to AWS, contributing to planning, execution, and post-migration validation.

Projects

Synapse – *Real-Time Collaborative Code Editor*
React, Node.js, MongoDB, REST APIs, JWT

- Built a real-time collaborative code editor using WebSockets, Yjs, and Monaco Editor, enabling seamless multi-user code editing with minimal latency.
- Implemented **secure room orchestration** with **JWT authentication** and **8-character access codes**, reliably supporting **20+ concurrent users per room** without state conflicts.
- Implemented CRDT-based synchronization (Yjs) for conflict-free updates, cursor awareness, and reliable document state management.

System Design Playground – *Interactive System Design Tool*
React, Vite, Custom Canvas Engine, State Management

- Built a **canvas editor** with drag-and-drop modeling, sustaining **60 FPS** across **30+ connected components**.
- Designed a **modular architecture component library** supporting **100+ configurable component nodes** for modeling system architectures.
- **Optimized canvas interactions and keyboard-driven workflows**, achieving **sub-50 ms UI response time** during node creation, deletion, and configuration.

Certifications

- **MongoDB Certified DBA Associate**
- **IBM Cyber Security Analyst**

Education

Vellore Institute of Technology, Bhopal   Oct 2022 – Apr 2026
B.Tech in Computer Science (Cyber Security & Digital Forensics)

Delhi Public School, Bulandsahr   April 2020 – Jun 2021
Higher Secondary Education