Nilesh Rana

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♠ nileshrana.me
♦ LeetCode

Education

Lovely Professional University, Jalandhar

B. Tech in Computer Science and Engineering

Aug 2023 – Present

CGPA: 8/10

Experience

Gharpayy Nov 2025 – Present

Full Stack Developer Intern

Bengaluru (Remote)

- Developing and optimizing frontend modules using React and Next.js.
- Implementing REST APIs, database operations, and contributing to core product logic.
- Enhancing overall app performance, usability, and smooth user experience.

Projects

Optisense AI | Next.js, Node.js, Typescript, Prisma ORM, Clerk, Gemini API



- Developed an intelligent conversational system supporting over **50** specialized personal assistants, handling multi-turn dialogue retention and delivering personalized, markdown-formatted responses.
- Implemented 15+ RESTful API routes for assistant management and chat processing, integrated Prisma ORM to manage normalized data models supporting concurrent user sessions and token-based usage tracking.
- Implemented a secure, automated payment infrastructure with webhook verification, managing tiered subscriptions and tracking real-time token usage and credit allocation (100,000 tokens per upgrade).
- Delivered a responsive, production-ready UI with optimistic updates and mobile-friendly chat behavior to ensure smooth user experience.

Syntaxist - Online Compiler | Next.js, Express.js, Docker, WebSocket, Gemini API



- Built a full-stack online compiler supporting 10+ languages (Python, Java, C++, Go, Rust, etc.) with WebSocket-based real-time code execution and interactive terminal using xterm.js.
- Implemented Docker containerization with isolated sandboxes for secure code execution with resource limits (256MB memory, 0.5 CPU), preventing malicious operations.
- Integrated Google Gemini API for automated Big O complexity analysis and intelligent code optimization suggestions with instant performance insights.
- Developed production-ready application with Monaco Editor, achieving real-time bidirectional communication and deployed on custom domain with 100+ users.

BitLinks - URL Shortner | Next.js, Tailwind CSS, MongoDB

GitHub

- Built a URL shortener using Next.js with RESTful APIs, custom slug generation, database-backed link storage, and dynamic route-based redirection for fast and reliable URL handling.
- Implemented duplicate URL validation, error handling with proper HTTP status codes (201/409/500), and MongoDB connection pooling for database optimization.
- Designed responsive UI with Tailwind CSS, featuring real-time URL validation, mobile-first design, and SSR for improved SEO performance.

Technical Skills

Languages: HTML, CSS, JavaScript, TypeScript, Java, SQL Frameworks & Libraries: React.js, Next.js, Node.js, Express.js

Databases: MongoDB, MySQL

Developer Tools: Git, Github, Postman, Docker, Compass, MySQL Workbench, VS Code

Core CS Topics: Data Structures & Algorithms, Object-Oriented Programming, Operating Systems, Computer Networks,

Database Systems (DBMS), System Design

Achievements

- Semifinalist, Tata Imagination Challenge 2025 selected among 7054 shortlisted candidates across India.
- Scored 75% in the NPTEL Cloud Computing course, a proctored national-level exam.
- Achieved a LeetCode Contest Rating of 1660 with global rank 1836 in Weekly Contest 472, demonstrating strong
 algorithmic knowledge and coding proficiency.
- Solved 500+ coding problems across LeetCode, CodeChef and Codeforces, showcasing strong problem-solving skills.
- Secured a position in the Dean's List, representing the top 10% of the college for academic excellence.
- Member of GitHub Club, LPU.