Shubham Mishra

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OBJECTIVE

Detail-oriented and performance-driven **Computer Science Engineering** graduate with a CGPA of **9.0**, experienced in **full-stack development**, **secure networking**, and **AI-driven web applications**. Proficient in **Next.js, Node.js, React**, and system design. Passionate about building scalable platforms with real-world impact.

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Java, Python, SQL
Frontend: React.js, Next.js, Tailwind CSS, HTML/CSS
Backend: Node.js, Firebase, MongoDB, SQLite
Tools & Frameworks: Electron.js, CryptoJS, Cloudinary, Framer Motion
Concepts: TCP/UDP Networking, Cryptography (AES/RSA), P2P Systems, DSA
Soft Skills: Analytical Thinking, Collaboration, Problem Solving, Communication

PROJECTS

StenoMaster - *Web Platform for Stenography Training* | 2025
A class-based typing and shorthand practice system for students with real-time assignment evaluation.
- Developed teacher-first flow with secure login, student assignment tracking, and image-based input processing
- Teachers upload shorthand images + reference text; student input is evaluated via lookahead & character-level comparison logic
- Built decentralized architecture with no central admin; multi-teacher–multi-student management
- Stack: Next.js, MongoDB (auth), Firebase (data), Cloudinary (images)
- Solved: OCR limitations by designing teacher-fed reference model; implemented custom performance analytics

DropShare - *Secure P2P File Sharing App* | 2025
Built a TCP/UDP hybrid file-sharing system with AES-256-CBC encryption, RSA-2048 key exchange, and file resume support.
- Enabled chunked file transfer with dynamic sizing and 3-way TCP handshake
- Implemented SQLite-based checkpointing for resumable file sharing
- Solved packet loss and CPU bottlenecks by optimizing retry logic and threading
- **Results:** Achieved 250 MB/s speeds; zero-data-loss file transfer
- **Stack:** React Native, Node.js, SQLite, CryptoJS, TCP/UDP

Portfolio Website | 2024
A visually appealing portfolio showcasing skills, projects, and achievements with optimized performance.
- Technologies: React.js, Next.js, Tailwind CSS, Framer Motion, Three.js.
- Key Features: SEO-optimized, fast-loading, visually engaging UI, responsive UI.
- Challenges: Cut load time by 60% with lazy loading; improved low-end device performance by 45%.
- Learnings: Mastered advanced frontend frameworks and performance optimization.

FrameMagic - *AI-Powered Image Editor* | 2023
- Created web app for background removal, object recoloring, and restoration using AI APIs
- Optimized backend via caching and chunked uploads; improved performance by 30%
- **Stack:** React.js, Next.js, Node.js, Tailwind CSS

CodeCraft - *Real-Time Web Code Editor* | 2023
A web-based code editor for HTML, CSS, and JavaScript with real-time output and code persistence.
- Technologies: React.js, Node.js, CSS, LocalStorage, TailwindCSS
- Key Features: Web-based editor for HTML, CSS, JavaScript with real-time output.
- Challenges: Ensured lag-free updates and cross-browser compatibility.

EDUCATION

Bachelor of Technology, Computer Science and Engineering
Guru Gobind Singh Indraprastha University, Delhi, India | 2021 - 2025 ● CGPA : 9.3

12th & 10th (CBSE)
Kamal Model Sr. Sec School, Delhi, India

PUBLICATIONS

- A Secure and Efficient Cross-Platform P2P File Sharing System ● Submitted for publication, 2025 (Pending)
  Presented "DropShare," a hybrid P2P file-sharing system with TCP/UDP networking, AES-256-CBC encryption, RSA-2048 key exchange, and SQLite-based file management, achieving transfer speeds of 12-18 MB/s and <50 ms device discovery.
- Image Manipulation Web Application: A Next.js Implementation
  International Journal of Scientific Research and Engineering Trends (IJSRET), Vol. 10, Issue 6, 2024 | DOI:
  [https://ijsret.com/?s=10.61137%2Fijsret.vol.10.issue6.348]
- Explored AI-driven image editing tools for background removal, object recoloring, and restoration in a user-friendly Next.js-based web application.

ACHIEVEMENTS

- Developed and deployed multiple full-stack applications, showcased via personal portfolio.
- Deployed 6+ full-stack projects with measurable performance improvements
- Reduced load time by 60% and increased device compatibility across apps