Mrigank Mouli Singh

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EDUCATION

Bachelor of Technology in Computer Science & Engineering 2022 – 2026
Indian Institute of Information Technology, Sonepat
CGPA: 7.2/10

EXPERIENCE

Web Developer Intern — Labmentix Pvt. Ltd. (Remote) **July 2025 – Present**

- Developed high-performance **React components**, improving responsiveness and load efficiency.
- Optimized database schema and refined **MongoDB queries** for faster data handling.
- Utilized state management techniques like **React Context** and **Redux** to handle complex UI states.

PROJECTS

eCommerce Platform Demo — MongoDB, Express.js, React.js, Node.js, Razorpay May 2025 - June 2025

- Engineered a full-stack eCommerce application using the **MERN stack**, supporting shopping cart, product search, pagination, and review features.
- Integrated **Razorpay payment gateway** for secure transactions and Brevo SMTP for email notifications; validated payments in demo flows.
- Implemented user authentication, profiles, and order history, improving user engagement and retention during pilot testing by **30%**.
- Developed an admin dashboard to manage products, users, and orders, reducing manual data entry by **40%**.
- Configured database seeding and deployed on Render, reducing environment setup time from hours to under **10 minutes**.

Crop Prediction — Python, Scikit-learn, React.js, Node.js February 2025 - April 2025

- Developed a machine learning model on soil (N-P-K, pH), temperature, humidity, and rainfall data, achieving **94% accuracy**.
- Processed **5,000+ agricultural records** using Scikit-learn and Pandas to extract key features for crop prediction.
- Built a responsive web app with **React.js** frontend and **Node.js/Express.js** backend for real-time recommendations.
- Enabled data-driven farming decisions, improving projected crop yield and reducing resource waste by **15–20%**.

Mrichat Demo — React.js, Nhost Auth, Hasura GraphQL, n8n, OpenRouter July 2025 - August 2025

- Built a secure chat platform using **React.js** with authentication via **Nhost Auth** and Row-Level Security (RLS), ensuring proper data isolation for all user sessions.
- Implemented real-time messaging through **Hasura GraphQL**, achieving message delivery in under **200ms** during testing.
- Integrated AI-assisted responses with **n8n workflows** and **OpenRouter API**, providing accurate replies across **100+ daily conversations**.

SKILLS

- **Programming Languages:** Python, C++, Java, SQL, HTML, CSS, JavaScript.
- **ML Frameworks & Libraries:** Pandas, NumPy, Matplotlib, Scikit-Learn, TensorFlow, PyTorch, OpenCV.
- **Web Development:** React.js, Node.js, Express.js, MongoDB.
- **Databases & Cloud:** MongoDB, MySQL, AWS, Microsoft Azure (365).
- **Tools & DevOps:** Git/GitHub, Linux, Docker, Jupyter, MATLAB, VS Code, IntelliJ IDEA.
- **Concepts:** Data Structures & Algorithms (DSA), Operating Systems, Computer Networks, OOP, DBMS, AI/ML, Software Engineering.

ACHIEVEMENTS

- Solved **300+ DSA problems**, achieved **Global Rank #334** in LeetCode Biweekly Contest 159 (Profile).
- Secured **#1st place** in Coding Quest at IIIT Sonepat organized by Algozenith Club.

COURSE WORK

Data Structures — Algorithms — Database Management Systems (DBMS) — Operating Systems — Computer Networks — Automata & Formal Language — Compiler Design — OOP — Software Engineering — Big Data — IoT — Artificial Intelligence — Machine Learning