# Piyush Raj

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## PROFESSIONAL SUMMARY

Full-Stack Developer with experience building scalable web applications using the MERN stack, C++, JavaScript, and SQL. Proficient in developing RESTful APIs, deploying microservices, and optimizing backend performance. Experienced in Agile environments, contributing to code quality, maintainability, and delivery speed.

## EDUCATION

**Indian Institute of Information Technology (IIIT) Sonepat**      **Nov 2022–Jul 2026**

Bachelor of Technology (B.Tech), Information Technology — CGPA: 8/10
Class 10th: 80%   —   Class 12th: 80%   —   JEE-Mains Percentile: 96.7%

## RELEVANT COURSEWORK

Data Structures and Algorithms, Object-Oriented Programming, Database Systems, Operating Systems, Computer Networks, Automata Theory, Compiler Design, Software Engineering, Big Data Analytics

## ACHIEVEMENTS

- Solved 250+ LeetCode problems, applying DSA techniques to optimize algorithm visualizations for front-end tools.
- Achieved 5-Star Coder status on **HackerRank** (Profile).
- Received the "Best Fashion Taste" award at **Euphoria 2022**, recognized for creativity and presentation.
- Built and maintained multiple full-stack GitHub projects demonstrating practical applications of web technologies.
- Regularly participated in coding contests to strengthen problem-solving and algorithmic thinking.

## TECHNICAL SKILLS

- **Languages:** C, C++, Java, Python, JavaScript, TypeScript, SQL, HTML, CSS
- **Frameworks/Libraries:** React.js, Node.js, Express.js, Next.js, REST APIs, Tailwind-CSS
- **Databases:** MongoDB, MySQL
- **Tools Platforms:** Git, GitHub, VS Code, Linux, Postman
- **Concepts:** Data Structures & Algorithms, OOP, OS, DBMS, Computer Networks

## PROJECTS

**ChatPilot (Full Stack)** GitHub      **Jan 2025–Jun 2025**

- Developed a real-time messaging platform supporting 1,000+ concurrent users with 99.9% uptime.
- Improved message delivery latency by 40% using WebSocket-based communication (Socket.io) and optimized database queries.
- Enabled secure group and private chats with live user status, typing indicators, and encrypted sessions via JWT and bcrypt.

**Digital Library Management System (Full Stack)** GitHub      **Oct 2024–Dec 2024**

- Built a MERN-based library platform used by 100+ students and staff, enabling 24/7 access to digital catalogs and book transactions.
- Reduced manual tracking by 90% by integrating real-time book reservations, returns, and role-based dashboards for students and admins.
- Improved security and data integrity using JWT authentication, React Hooks for state control, and Express + MongoDB for robust backend APIs.

**Sorting Algorithm Visualizer** GitHub      **Jun 2024–Aug 2024**

- Designed an interactive tool to help students visualize sorting algorithms, increasing comprehension scores by 50% (measured via peer survey).
- Reduced animation lag by 45% using p5.js optimizations and efficient DOM handling.
- Received positive feedback from 90% of users during college workshops on DSA concepts.

## WORK EXPERIENCE

**Project Lead − Academic Projects**      **Jan 2025–Jun 2025**

- Managed 2-member teams across two academic projects, delivering both ahead of schedule.
- Conducted weekly code reviews and planning sessions, increasing team velocity by 25%.

## EXTRA CURRICULAR ACTIVITIES

- Led college teams in cricket, football, badminton, and basketball; earned medals for outstanding performance and leadership in intercollegiate sports tournaments.
- Engaged in continuous personal development through reading and music, supporting focus and creative thinking.