

# Aman Jaiswal

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## SUMMARY

Final-year B.Tech student at MANIT Bhopal with strong foundations in **Data Structures - Algorithms** and **Backend Engineering**. Experienced in building **scalable RESTful services**, **real-time event-driven systems** and **distributed backend applications** using Java Spring Boot, Node.js, and modern web technologies. Strong understanding of **System Design**, **microservices architecture** and **scalable application development**. Solved **800+ algorithmic problems**, demonstrating strong analytical and problem-solving ability.

## EDUCATION

- **Maulana Azad National Institute Of Technology (NIT), Bhopal** 2022–2026  
*Bachelor of Technology - Electronics And Communication Engineering* CGPA: 8.16

## EXPERIENCE

- **Lumber (SDE Intern)** Bangalore  
*Tech: Java, Spring Boot, React.js, PostgreSQL, Docker*
  - Designed and developed a scalable **Content Management System (CMS)** using **Spring Boot** and **PostgreSQL**, used across internal modules for content sharing, bookmarking and efficient delivery in production.
  - Built and optimized **scalable, idempotent RESTful APIs** (including **paginated and batch APIs**) with secure authentication mechanisms, improving data retrieval efficiency by **25%** across dashboard and workbench modules.
  - Implemented **caching, lazy loading, and database query optimizations** as part of scalable system design, reducing API response time by **30%** and enhancing scalability, along with integrating **AWS S3** for efficient media storage and retrieval.
  - Developed **notification systems and scheduled jobs** using **asynchronous processing with thread pooling**, ensuring reliable background processing with failure handling and retry mechanisms under high-throughput workloads.

## TECHNICAL SKILLS

**Programming Languages:** C++, Java, JavaScript, SQL

**CS Fundamentals:** Data Structures & Algorithms, OOP, DBMS, Operating Systems, Computer Networks

**Backend:** Spring Boot, Node.js, Express.js, REST API Design, JWT Authentication, Socket.IO, API Optimization, Asynchronous Processing, Thread Pooling, Scalability, Caching, Rate Limiting

**Frontend:** React.js, Redux Toolkit, HTML, CSS, Tailwind CSS, Lucide-React, ShadCN

**Databases:** PostgreSQL, MySQL, MongoDB, Query Optimization, Indexing, Data Modeling

**Cloud & DevOps:** System Design, Render, Vercel, CI/CD, Version Control, AWS S3, Docker, CDN

**Practices:** Clean Code, Debugging, Code Reviews, AI-assisted Development

**Developer Tools & Platforms:** Git, GitHub, Postman, IntelliJ IDEA, VS Code, MongoDB Atlas, Jira

**Soft Skills:** Problem Solving, Ownership, Team Collaboration, Time Management

## PERSONAL PROJECTS

- **SyncCanvas** 🌐 🌐  
*Tech: ReactJS, Java, Spring Boot, WebSockets, MySQL, JWT Auth, Tailwind CSS*
  - Engineered a low-latency, **real-time collaborative whiteboard** using **React.js**, **Spring Boot** and **WebSockets**, designing a custom event-driven synchronization pipeline to propagate vector paths, text inputs, and cursor coordinates across concurrent clients with sub-**50ms** latency.
  - Optimized the custom **HTML5 Canvas rendering engine** natively in React, implementing mathematical algorithms for path smoothing, multi-touch pinch-to-zoom, selection/resizing bounding boxes, and eraser-to-line collision detection to maintain a steady **60 FPS** without external rendering libraries.
  - Mitigated distributed synchronization conflicts and database bottlenecks using a **Last-Write-Wins** reconciliation strategy combined with a **tempId-to-DB-ID mapping system** for optimistic UI updates, secured via a **JWT-based connection gating** pipeline.
- **Poolify** 🌐 🌐  
*Tech: ReactJS, Node.js, MongoDB, Redux, Socket.io, Maps API, JWT Auth, Tailwind CSS, ShadCN*
  - Built a scalable **MERN-based ride-sharing system** with secured hashed-password authentication and role-specific dashboards, onboarding **50+ users** and enabling structured driver-rider workflows.
  - Implemented **real-time chat via Socket.IO** using **event-driven architecture**, supporting **40+ real-time ride interactions** with automated chat lifecycle management, aligning with backend asynchronous processing patterns.
  - Integrated Google Maps, ride history analytics, and driver reviews, allowing users to track rides taken/offered and improving platform trust & usability by **30%**.
- **E-Commerce Database** 🌐 🌐  
*Tech: MySQL, SQL, ER Modeling*
  - Designed a fully normalized relational database simulating a production-grade e-commerce system with **20+ interconnected tables** across authentication, catalog, logistics, payments, and analytics.
  - Developed advanced SQL queries and index optimization to enhance filtering, order tracking, review analytics, and user-centric modules such as cart, wishlist, and addresses.
  - Implemented triggers, constraints, and stored procedures to ensure data integrity and improve query reliability.

## ACHIEVEMENTS

- **97.5 Percentile in JEE Mains**
- **1st Rank in District in Higher Secondary**
- **750+ DSA Problems Solved** on LeetCode & GeeksForGeeks