

MANISH RATHAUR

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✉ Email

in LinkedIn

📁 Portfolio

🐙 GitHub

Skills

Backend Development: Java, Core Java, Object-Oriented Programming (OOP), Spring Boot, RESTful APIs, Microservices Architecture, System Design, JDBC, Hibernate

Frontend Development: JavaScript, HTML, CSS, React, Responsive Design, UI/UX Implementation

Database & Storage: MySQL, PostgreSQL, H2, Database Design, Query Optimization

Tools & DevOps: Git, GitHub, Maven, Postman, IntelliJ IDEA, Visual Studio Code, Version Control, Code Review

Soft Skills: Analytical Thinking, Problem Solving, Debugging, Code Quality, Communication, Team Collaboration

Coursework: Data Structures, Algorithms, Operating Systems, Computer Networks, Artificial Intelligence, Machine Learning

Projects

Carbon Pulse – Digital Carbon Footprint Tracker

Live Demo

- Architected a scalable microservices platform to track real-time digital carbon emissions using Spring Boot, Node.js, and React, processing 300+ messages per minute with 99% uptime SLA and production-grade reliability.
- Implemented system design patterns including circuit breakers and retry mechanisms, achieving 95% fault resilience using the industry-standard @tgwf/co2 library for IEA-compliant carbon calculations.
- Built a real-time data visualization dashboard with 10-second polling intervals, Recharts integration, and an H2 persistence layer, ensuring continuous emission tracking with zero data loss.
- Designed REST API architecture with optimized endpoint structures and database queries for high-throughput data processing.

Tech Stack: Spring Boot, Java, Node.js, React, REST APIs, Discord.js, @tgwf/co2, H2, Recharts, Tailwind CSS

Tab Story – AI-Powered Browser Tab Management Extension

Live

- Engineered a full-stack Chrome extension with AI-powered intent detection using Chrome's Built-in AI API, automatically clustering and organizing browser tabs with 100% local data processing for a privacy-first architecture.
- Implemented a robust session management system with crash recovery, automatic backups, and timeline restoration, achieving zero data loss across browser sessions.
- Designed an intelligent tab grouping algorithm with domain-based fallback logic, integrating Chrome Tabs and Side Panel APIs for seamless user experience and productivity workflows.

Tech Stack: JavaScript, Chrome Extension (Manifest V3), Chrome Built-in AI API, Chrome Storage and Tabs APIs, Material Symbols

Achievements

- Contributed 5+ Java-based UI/UX improvements to the **Organic Maps** open-source project, enhancing code quality and user experience for thousands of active users worldwide.
- Led and organized 3+ academic hackathons and technical events, demonstrating leadership, project management, and teamwork while mentoring peers in software development best practices.
- Applied systematic debugging techniques, code reviews, and clean code principles to maintain high-quality standards across personal and collaborative projects.

Education

Bachelor of Technology (Computer Science & Engineering)

Expected 2026

Graphic Era Hill University

CGPA: 7.83

Certifications

- Udemy – **100 Days of Code: Python Bootcamp** (Python fundamentals, data structures, and problem-solving).
- Udemy – **Optimizing Generative AI with LangChain and Hugging Face** (LLM pipelines, prompt chaining, model optimization, AI system design).