MANISH KUMAR TIWARI

Shri Ramswaroop Memorial University, Lucknow, India
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Education

B.Tech, Computer Science, Sitare University *Course Completion - July'27*

Relevant Coursework: Python Programming, Java Programming, Object Oriented Programming Concepts, Data Structures and Algorithms, Artificial Intelligence, Database Management System and Machine Learning, Search Engine & Information Retrieval

GPA: **8.20**

Technical Skills

Programming Languages: Java, Python, TypeScript, JavaScript, SQL, Swift
Web Technologies: Spring Boot, FastAPI, Node.js, Express, Next.js, React.js, REST APIs, Socket.IO
AI / ML: RAG, Hybrid Search (BM25 + Dense), Rerankers, LLM Agents, LLM Evals, LangChain, scikit-learn
Databases & Cloud: PostgreSQL, MySQL, MongoDB, Redis, Supabase, Prisma, Firebase
Mobile Development: Swift, SwiftUI, UIKit, MVVM, Clean Architecture, SPM, React Native (Expo)
Tools: Git, GitHub, GitHub Actions, Docker, Linux, Vercel, Render, Postman, VS Code, Xcode

Work Experience

iOS Engineer Intern, Beans.ai, Noida *May'26 - July'26*

- **Application Development:** Rebuilt 80% of the Beans Route iOS app using SwiftUI, MVVM, and Clean Architecture.
- **Development:** Built scalable UI, REST APIs, async networking, dependency injection, and reusable components.
- **Impact:** Reduced third-party dependencies, improved maintainability, and accelerated build performance.
- **Automation:** Automated development workflows and code generation to reduce boilerplate and speed up development.
- **Tools & Technologies Used:** Swift, SwiftUI, MVVM, Clean Architecture, Async/Await, REST APIs, Xcode, Git.

Projects

ALARSIO - Offline-first Construction Operations Platform *Team of 4*

Top contributor (130+ commits, 26 merged PRs) to a Next.js, Expo and Supabase platform for Indian contractors running 2–20 sites. Owned Sites and Attendance: geofenced check-in and an offline attendance register, with approvals enforced through Postgres row-level security and 35 SQL test suites.

GATE SAATHI - Collaborative GATE Exam-Prep Platform

Built a full-stack platform with Next.js 15, TypeScript, Prisma and Postgres: 559 PYQs across 20 branches, timed mocks with real GATE marking, live study rooms, and a Claude-powered AI doubt engine with per-user limits, tested with Vitest and Playwright in CI.

AGENTIC RAG - Measured Question Answering over PDFs

Built a cited PDF Q&A system in Python with OCR ingestion, hybrid dense + BM25 retrieval fused by RRF, cross-encoder reranking and a bounded agent loop, evaluated on a 76-question benchmark with bootstrap confidence intervals and ablations.

NEXTHIRE - Online Judge & Interview-Prep Platform

Built a React, TypeScript, Node.js and PostgreSQL platform with a multi-language judge that runs code in network-isolated Docker containers, live verdicts over Socket.IO, rotating refresh-token auth with OAuth, spaced-repetition revision and timed contests.

Achievements & Scholarships

Solved 550+ problems on LeetCode
100% B.Tech CS Scholarship, Sitare Foundation *Oct'24 - Present*
Yuva Unstoppable Foundation *July'21 - Present*