

Harsh Mrigank

Full-Stack Developer

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[LinkedIn \(Link\)](#) — [GitHub \(Link\)](#) — [Portfolio \(Link\)](#)

Summary

Full-stack developer with hands-on experience in backend-oriented projects and system-level programming concepts. Proficient in C++, Java, JavaScript, and SQL, with practical exposure to compiler construction, REST API development, authentication, and relational database design. Has built and deployed backend-first applications using Node.js and PostgreSQL, gaining experience with production workflows and code quality practices.

Education

Techno Main Salt Lake (MAKAUT), Kolkata B.Tech in Computer Science — CGPA: 7.54 (till 5 th semester)	<i>Aug 2023 – Jul 2027</i>
Satyam International School (CBSE), Patna Class XII (PCM) — 89%	<i>2021 – 2022</i>

Technical Skills

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

Backend: Node.js, Express, REST APIs, JWT Auth, Middleware

Databases: PostgreSQL, Schema Design, Indexing, Joins

Frontend: HTML, CSS, React, Next.js, Tailwind CSS

Tools & Systems: Git, GitHub, CMake, Linux, Shell

Core Practices: API Design, AuthN/AuthZ, Secure Execution, Input Validation, Error Handling

Coursework: DSA, OOP, OS, DBMS

Projects

- **HMSCC** GitHub
C++, CMake, Node.js, Express, HTML, CSS, JavaScript
 - Built a from-scratch compiler for a C-like language implementing **6+ compilation stages**: lexical analysis, recursive-descent parsing, AST construction, semantic analysis, symbol table management, and C code generation.
 - Integrated a native C++ compiler binary with a Node.js backend via **RESTful APIs** to compile and execute programs, returning structured outputs, errors, and intermediate C code.
 - Implemented static semantic checks, sandboxed execution, timeout-based guards, and defensive input handling to ensure **secure and controlled runtime execution**.
- **Bahhi Khata** GitHub
Node.js, Express, PostgreSQL, JWT, Next.js, Tailwind CSS
 - Developed a backend-first expense tracking system with focus on **scalable REST API architecture** and clean service layering.
 - Implemented **JWT-based stateless authentication**, protected routes, and a normalized PostgreSQL schema using foreign keys, constraints, joins, and indexes.
 - Deployed backend services with environment-based configuration, validating real-world scenarios such as auth failures, migrations, and API debugging.

Coding Profiles

LeetCode: Rating 1464 — 200+ DSA problems

GeekForGeeks: 150+ Coding Score

Certifications

- Udemy — C++ Programming Certification
- NPTEL — Programming in Java
- NPTEL — Software Engineering
- Oracle Cloud Infrastructure — Foundation Certified
- McKinsey & Company — Forward Program

Achievements

- Smart India Hackathon (SIH) — Finalist
- Google Cloud — Cloud Arcade