

Naresh Tiwari

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Summary

2026 CSE graduate with experience in Java, SQL, test automation, REST APIs, and AI-assisted software development.

Education

Lovely Professional University

2022 – 2026

Bachelor of Technology (B.Tech) in Computer Science and Engineering

CGPA: **7.84/10**

Professional Experience

Zynkly — AI/ML Engineer Intern

Apr 2026 – Jul 2026

- Built a **Python-based KYC prototype** combining **OCR and face matching** for worker identity verification; exposed the workflow through Swagger-documented REST APIs.
- Presented the prototype to founders, explaining its technical workflow and worker-onboarding use case; automated support workflows using **LLM APIs**.

Mphasis — Software Development Intern

Jan 2026 – Apr 2026

- Developed **9 REST endpoints** for a Bookstore backend using **Java, Spring Boot, and Hibernate**; documented API contracts with Swagger.
- Designed a normalized **MySQL schema** with one-to-many and many-to-many relationships; validated data using **SQL joins and subqueries**.
- Implemented **input validation, global exception handling, and structured JSON errors** for consistent API behavior.
- Worked in a **5-member Agile development team** across **3 sprints**, participating in sprint planning, Git pull requests, and code reviews.

Projects

Distributed File Storage System

Live Demo | GitHub

Java 21, Spring Boot, Spring Security, PostgreSQL, React, Docker, AWS S3 SDK

- Built **7 REST endpoints** for authentication and file management; enforced **per-user authorization** with JWT and BCrypt to restrict file access to owners.
- Supported uploads of **up to 10 MB per file** with **HTTP 413 responses** for oversized requests; separated file contents in S3-compatible storage from metadata in PostgreSQL.
- Implemented **SHA-256 checksums**, Flyway migrations, and **test automation** for unit, web-layer, and integration testing using **JUnit 5, Mockito, and Testcontainers**.
- Deployed the full stack on **Vercel, Render, Neon, and Supabase**; used **Claude Code** to assist coding and debugging.

NavData — CDC Data Pipeline

Python, Apache Kafka, MongoDB, Apache Iceberg, AWS S3, Docker

- Enabled **incremental data replication** by streaming MongoDB inserts, updates, and deletes through **Kafka** into **Apache Iceberg on AWS S3**, avoiding full batch reloads.
- Containerized the stack with **Docker Compose**; validated **row counts and schema consistency** against source data using SQL.

API Health Monitor

Java, Spring Boot, Kafka, MySQL, Docker

- Built **3 microservices** behind an API gateway with separate **MySQL databases**, separating service responsibilities and data ownership.
- Implemented **asynchronous communication using Kafka**, allowing services to exchange events without waiting for synchronous responses.

Technical Skills

Programming Languages: Java, SQL, Python, JavaScript, C++, Bash/Unix Shell Scripting

Backend: Spring Boot, Spring Security, Hibernate/JPA, REST APIs, Swagger

Test Automation: JUnit 5, Mockito, Testcontainers, Unit Testing, Integration Testing, API Testing, Postman

Databases & Data: MySQL, PostgreSQL, MongoDB, Apache Kafka, Data Modelling

Tools: Git/GitHub, Docker, Maven, AWS S3 SDK, Claude Code

Fundamentals & Practices: OOP, Data Structures and Algorithms, Complexity Analysis, Agile Development, Scrum, Code Reviews

Achievements

- Top 3 among 500+ participants** in the GeeksforGeeks × LPU coding contest.
- Dean's List:** top 10% of the academic cohort.