

# SHISHAGRA NIGAM

## AI Software Engineer | Python Development & Applied Machine Learning

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### PROFILE

Computer Science Engineering graduate (2026) with backend software engineering experience in Python and Java, and hands-on applied ML through independent projects and AI certifications. Skilled in root-cause analysis and building robust, maintainable software on production systems, with direct stakeholder-facing experience under real business constraints. Seeking an AI Software Engineer role at BCG X to design, build, and deploy scalable AI-driven solutions.

### TECHNICAL SKILLS

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

**AI & Machine Learning:** ML pipeline design, model deployment via REST APIs, Oracle Cloud Infrastructure AI Foundations Associate & AI Professional, NVIDIA Edge AI Applications

**Software Engineering:** REST API design, Object-Oriented Programming, Spring Boot, microservice-style backend services, Agile development, code review, testing & debugging

**Systems & Data:** Linux, TCP/IP, system debugging, log analysis, MySQL, PostgreSQL, MongoDB, schema design, query optimization

**Cloud & Tools:** AWS (AWS Academy Cloud Architecting), Microsoft Azure Fundamentals, Git, Docker, Postman

**Core CS Foundations:** Data Structures & Algorithms, Operating Systems, DBMS, Computer Networks, Distributed Systems

### PROFESSIONAL EXPERIENCE

#### Technical Troubleshoot Engineer | ZKTeco India Pvt. Ltd. June 2026 – Present

- Apply rigorous software development and debugging practices to investigate and resolve production issues on Linux-based enterprise systems, improving platform reliability for enterprise customers.
- Perform root-cause analysis on software defects and backend/network integration failures across TCP/IP, HTTP, REST APIs and SDK-based services, optimizing computational and diagnostic efficiency.
- Guide non-technical and cross-functional stakeholders through best practices for robust, maintainable software, translating technical findings into clear, actionable recommendations.
- Validate firmware releases and encrypted licensing workflows in close collaboration with engineering teams, working in a fast-paced, service-oriented environment with direct accountability to enterprise deployments.

#### Software Engineer Intern | HCLTech Aug 2025 – Oct 2025

- Built backend application components in Java and REST APIs, integrating relational databases for efficient, scalable data processing.
- Wrote and optimized SQL queries; contributed to debugging, testing and code review as an active participant across the full software development lifecycle within an Agile team.
- Collaborated cross-functionally to ship scalable features, iterating on software design and solution ideas with the broader engineering team.

### KEY PROJECTS

#### EcoScanAI — Carbon Footprint Analytics Platform | Personal Project Python · Flask · Machine Learning · MongoDB

- Designed and implemented an end-to-end ML pipeline estimating carbon footprint from environmental datasets, from data ingestion to model output.
- Exposed model results through REST endpoints for front-end integration, optimizing for computational efficiency and maintainable software architecture.

#### HireMate — AI-Powered Recruitment Platform | Personal Project Spring Boot · React.js · MySQL · JWT

- Built a full-stack recruitment platform with candidate/recruiter workflows, JWT authentication and role-based access control on a Spring Boot + MySQL backend.

#### Distributed Task Management System | Personal Project Java · React.js · MySQL · REST APIs

- Designed modular backend services and an optimized relational database schema for fast, reliable CRUD operations at scale.

### EDUCATION

**B.Tech, Computer Science and Engineering — SRM Institute of Science and Technology (CGPA: 8.50/10) 2022 – 2026**

### CERTIFICATIONS & ACHIEVEMENTS

- Oracle Cloud Infrastructure AI Foundations Associate & AI Professional
- AWS Academy Cloud Architecting
- NVIDIA Edge AI Applications
- Solved 300+ Data Structures & Algorithms problems; hands-on production experience debugging Linux-based enterprise systems and performing root-cause analysis in a commercial environment