

Sampurna Niyogi

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SUMMARY

Software Engineering student focused on backend development and RESTful APIs, with experience building services using Spring Boot, FastAPI, and Django. Hands-on exposure to HTTP-based services, database integration, and cloud deployment.

EDUCATION

- Heritage Institute Of Technology, Affiliated to MAKAUT** Kolkata, India
B.Tech in Computer Science and Engineering; CGPA: 9.84 Aug 2024 – Present

TECHNICAL SKILLS

Programming Languages: Python, Java, C, C++
Backend & APIs: Spring Boot, Django REST Framework, FastAPI, Flask
Databases: MongoDB, MySQL, SQLite, Firebase Firestore
Cloud & Tools: Git, GitHub, Docker (basic), Postman, Linux
Frontend: HTML, CSS, JavaScript, React, Streamlit

CERTIFICATIONS

- Postman API Fundamentals Student Expert**
- Introduction to Internet of Things, NPTEL**

PROJECTS

Chemical Plant Equipment Monitor	<i>Django REST, React, PyQt5</i>
<ul style="list-style-type: none">Developed RESTful APIs to collect and process industrial telemetry data (temperature, pressure, flow rate).Designed a three-tier architecture supporting both web and desktop clients.Implemented data visualization and analytics dashboards for monitoring equipment behavior.	
AI-Based Self-Checkout System	<i>Flask, Firebase, Streamlit</i>
<ul style="list-style-type: none">Built backend services for a queue-free retail checkout system with cart-level user authentication.Integrated Firestore for real-time cart updates and backend-driven checkout workflows.Focused on backend–frontend separation and low-latency request handling.	
Smart Recipe Manager	<i>FastAPI, MongoDB</i>
<ul style="list-style-type: none">Developed authentication-enabled CRUD APIs for managing structured recipe data.Designed and optimized MongoDB schemas for efficient data retrieval.Implemented RESTful endpoints following clean API design principles.	
Developer Learning Platform (In Progress)	<i>Spring Boot, REST APIs</i>
<ul style="list-style-type: none">Designing backend APIs for problem management, user handling, and code submission workflows.Implementing layered architecture with focus on extensibility and clean API contracts.	

OPEN SOURCE EXPERIENCE

Open Source Contributor—Social Winter of Code (SWoC)	<i>Jan 2026 – Present (Remote)</i>
<ul style="list-style-type: none">Engineered real-time profile analytics to replace mock data using GitHub APIs; solution submitted via Pull Request #69.	
<ul style="list-style-type: none">Implemented backend endpoints with in-memory caching (1-hr TTL) to optimize performance and prevent API rate-limiting.	

MEMBERSHIPS

- Google Developer Group (GDG) on Campus, Heritage Institute of Technology
- ACM Student Chapter, HITK