

Sampurna Niyogi

LinkedIn : [linkedin.com/in/SampurnaNiyogi](https://www.linkedin.com/in/SampurnaNiyogi)
GitHub : github.com/SampurnaNiyogi
Portfolio : portfolio-sampurna-theta.vercel.app

Email : sampurna.niyogi06@gmail.com
Phone : +91-8585006740
LeetCode : leetcode.com/u/SampurnaNiyogi

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 *Django REST, React, PyQt5*

- 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 *Flask, Firebase, Streamlit*

- 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 *FastAPI, MongoDB*

- 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) *Spring Boot, REST APIs*

- 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) *Jan 2026 – Present(Remote)*

- Engineered real-time profile analytics to replace mock data using **GitHub APIs**; solution submitted via **Pull Request #69**.
- 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