

Subrojoyoti Paul

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SUMMARY

Software Engineer, specializing in backend development, AI/ML, and data-driven solutions. Proficient in Python, C/C++, and LangGraph with hands on experience in NLP, LLM and RAG systems.

EXPERIENCE

Backend Engineer Intern

Netenrich, Inc.

Aug 2025 – Present

Bangalore, India

- Engineered and optimized backend automation workflows, streamlining customer onboarding and data-driven pipelines across microservice-based architectures.
- Implemented and integrated unsupervised clustering system into existing AI workflow to group and summarize high-volume security data, reducing LLM token usage and inference cost by 40%.
- Designed asynchronous, concurrent request-handling mechanisms using Python async paradigms to improve API throughput and responsiveness under high-load scenarios.
- Collaborated with AI and cloud infrastructure teams to deploy scalable, cost-efficient backend solutions leveraging Python, LLM, and GCP services

TECHNICAL SKILLS

Languages: Python, C/C++, SQL

Databases: MySQL, PostgreSQL, FAISS Database

Frameworks: Flask, FastAPI, LangGraph

Developer Tools & Working Environment: Git, VS Code, Github, Linux, Windows

Cloud Platforms: GCP

Familiar CI/CD Tools: Github Actions, Jenkins

PROJECTS

AI Library Management System

May 2025 – Jun 2025

FastAPI, PostgreSQL, Pydantic, Gemini API

- Developed a full-stack application for library management with FastAPI REST APIs and PostgreSQL database
- Implemented automated email notifications using APScheduler and Fastmail via Mailjet API
- Built an intelligent QA AI system using Gemini API for library-related queries

Research Rover

Feb 2025 – Jun 2025

Flask, React, FAISS, Sentence Transformers, RAG

- Created semantic research discovery platform integrating CORE, PubMed APIs, and Gemini API
- Implemented recommendation system using Sentence Transformers, FAISS database, and RAG architecture
- Developed automated PDF and CSV generation with Flask backend and React user interface

Diversified News Recommendation System

Aug 2024 – Dec 2024

Python, MIND Dataset, Collaborative Filtering

- Addressed cold start problem and echo chamber effect using MIND dataset with collaborative and content-based filtering
- Implemented hybrid recommendation with diversity re-ranking algorithm
- Achieved precision@10: 74%, recall@10: 88%, NDCG@10: 34%, MRR: 19%, ILS: 71%

EDUCATION

Tezpur University

Master of Computer Applications (MCA), CGPA: 9.01/10

Tezpur, Assam

2022 – 2025

Gauhati University

B.Sc. Mathematics (Honours), Minor in Statistics, CGPA: 8.55/10

Tezpur, Assam

2019 – 2022

CERTIFICATIONS

Machine Learning Algorithms (Supervised and Unsupervised Learning), Google Data Analytics, Python for Data Science, The Joy of Computing Using Python (NPTEL)