

Soumyadeb Tripathy

soumyadeb043@gmail.com • +91-7047660688 • Jalandhar, India

github.com/Rexy-5097 • linkedin.com/in/soumyadeb-tripathy • leetcode.com/u/ApexRaptor_5097/ • Open to Relocation

PROFILE

Backend Engineer building scalable and low-latency systems for real-time applications. Improved prediction accuracy from 62% to 80% (+18%) in a machine learning-driven bidding system. Strong in data structures, API design, and building scalable backend systems. Targeting backend engineering roles.

TECHNICAL SKILLS

Languages: C++, Python, Java, JavaScript
Frontend: Next.js, React.js
Backend: Node.js, REST APIs, API Design, Microservices
Databases: PostgreSQL, SQL
Systems: Data Structures & Algorithms, Operating Systems, DBMS, Computer Networks
Concepts: System Design, Distributed Systems, Scalability, Low-Latency Systems
Tools: Git, Docker, CI/CD

EXPERIENCE

Backend Developer (Project-Based Experience) | *Self-Initiated* | 2025 – Present

- Architected scalable backend system for real-time bidding with data ingestion, feature processing, and inference layers
- Improved prediction accuracy from 62% to 80% using regression models and feature engineering
- Built low-latency data processing pipeline for real-time decision making
- Reduced bid wastage by 22% using optimized scoring and threshold-based decision logic
- Structured system using modular components to support scalability and maintainability

AI Security System Developer | *Self-Initiated* | 2025

- Developed backend system for detecting prompt injection and adversarial inputs in LLM pipelines
- Implemented rule-based filtering and token-level analysis for secure input validation
- Designed scalable validation pipeline processing 1M+ tokens with low latency
- Automated logging and monitoring reducing manual audit effort by 30%

PROJECTS

Real-Time Bidding Optimization System

Python, Scikit-learn | github.com/Rexy-5097/nexus-rtb-engine

- Applied regression models and feature selection for prediction and decision optimization
- Simulated 10,000+ auction scenarios to evaluate system performance under load
- Designed system for scalable data processing and real-time decision making

GEOFENCE-LLM (LLM Security System)

Python, NLP | github.com/Rexy-5097/GEOFENCE-LLM

- Implemented heuristic scoring and pattern matching to detect adversarial input patterns
- Designed backend pipeline for secure and scalable AI inference workflows

DSA Practice Repository

C++, Problem Solving | github.com/Rexy-5097/DSA-Practice-500

- Solved 500+ problems across arrays, graphs, trees, and dynamic programming
- Applied binary search, greedy algorithms, recursion, and dynamic programming
- Optimized solutions for O(N) and O(log N) time complexity

EDUCATION

B.Tech, Computer Science and Engineering

Lovely Professional University | 2025 – Present

Higher Secondary Education

Kishorenagar Sachindra Siksha Sadan | 2024

Gap Year (2024–2025): Focused on data structures, system design, and backend development

LANGUAGES

English | Hindi | Bengali