

Swagat Sahu

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EDUCATION

- **Bachelor of Technology in Mechatronics and Automation Engineering** CGPA: 8.5
Indian Institute of Information Technology Bhagalpur 2024 – 2028
- **Minor in AI and ML (Completed)** CGPA: 8.0
Indian Institute of Technology Ropar Aug 2024 – Aug 2025

SUMMARY

Backend-focused developer specializing in real-time distributed systems and scalable cloud-native applications. Experienced in building low-latency collaborative platforms with real-time collaborative sync with WebSockets and training custom Transformer models from scratch. Strong in AWS, Docker, CI/CD, and system design. Seeking roles in backend engineering, distributed systems, or ML infrastructure.

SKILLS AND INTERESTS

Languages: Python, JavaScript/TypeScript, C++
Backend and Frameworks: React, Next.js, Node.js, FastAPI, Express, Spring Boot, WebSockets
Coding Profiles: Codeforces (Pupil), Codolio
Database: MySQL, PostgreSQL, Redis, MongoDB
Tools: Git, n8n, Linux
ML / AI: PyTorch, OpenCV
Cloud and DevOps : Amazon Web Services (AWS), Google Cloud Platform (GCP), GitHub Actions
Coursework: Object Oriented Programming (OOP), Computer Network (CN), Database Management System (DBMS), Operating System (OS)
Soft Skills: Communication, Teamwork, Ownership
Areas of Interest: Distributed Systems, System Design, Data Structures and Algorithms

EXPERIENCE

- **DevOps Engineer at BlueSprings Innovation Pvt Ltd.** Sept 2026 - Present
Intern at AI Applications Team - Large Language Models (LLM) shipping and Testing features Internship
 - Improved Existing Testing and Shipping Platform decreasing the runtime by 40 percent.
 - Shipped Multiple Evaluation Model Feature helping test cheaper with a maximum of 90 percent headroom in budget.
 - Created CI/CD pipelines in Github Actions, automating deployment post checks and merges.

PROJECTS

- **DitchDocs – Real Time Collaborative Document Platform on AWS** Aug 2026 - Sept 2026
Production cloud native collaborative workspace Tech Stack - MERN
 - Engineered a real-time CRDT sync engine using Yjs and WebSockets, supporting 50+ concurrent editors per document across 15+ styles with sub 50 ms synchronization latency.
 - Implemented gateway RBAC access maps for secure document sharing and debounced database persistence with hydration, preventing race conditions and data loss.
 - Github | Live
- **Text to SQL Transformer - A 11.2 million Parameter Small Language Model (SLM)** March 2026 - July 2026
Custom Sequence to Sequence model for Natural Language to SQL translation
 - Developed a 11.2 million parameter Encoder-Decoder Transformer from scratch using PyTorch with a 4-layer depth.
 - Implemented 8-head Multi-Head Attention and a custom Byte-Pair Encoding tokenizer with a vocabulary size of 5000 words.
 - Github | Live

POSITIONS OF RESPONSIBILITY

- **Student Coordinator** Training and Placement Cell, IIIT Bhagalpur Oct 2025–Present

ACHIEVEMENTS

- Winner in Bit By Bit Hackathon among 25 teams across India January 2026
- Top 10 in Smart India Hackathon August 2025