

# SAHIL TYAGI

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## EDUCATION

### Indian Institute of Technology (IIT)

Master of Technology: CE : GPA: 7.8

Guwahati, India

July 2022 – July 2024

### University Institute of Engineering and Technology

Bachelor of Technology: CE : CPI: 6.85

Kanpur, India

July 2017 – July 2021

## EXPERIENCE

### Edify

April 2025 – Present

Software Development Engineer

Bengaluru, India

- Implemented a **high-performance logging system**, tracking over **7,500 assets**, reducing query time for audit purposes by **40%**, and increasing velocity for critical operational insights
- Facilitated **Agile ceremonies** and **coached two sprint teams** on best practices, driving a **15% improvement** in release speed and enhancing predictability of software delivery
- Led the development of a **ticketing service** featuring an **AI agent**, boosting first-call resolution rate by **25%** and improving customer satisfaction scores by **0.3 points**
- Lead cross-functional teams to deploy a **Dockerized workflow** on **EC2**, boosting SLA adherence by 50% and reducing throughputs by 40%
- Implemented **AI-powered agents** automating **Tier-1 support queries**, reducing manual effort by **70%** and saving the support team approximately **6 hours per week**

### Edify

December 2024 – March 2025

Backend Consultant

Bengaluru, India

- Orchestrated the transition from a **monolithic backend** to a **modular architecture**, serving over **10,000 customers** more efficiently and reducing server costs by **20%** during peak usage
- Crafted low-latency REST APIs with and added **Redis caching**, cutting DB queries by 60% and delay by 40%
- Built a Redis-based **atomic lock** for product selection and payments, enabling safe **concurrency handling** for **50K+** monthly transactions and cutting payment failures by 40%
- Teamed with cross-functional teams to integrate 10+ third-party apps via **OAuth**, streamlining **workflows** and boosting productivity

## PROJECTS

### Therapist AI | MERN, LLM, RAG, Typescript

August 2025 – September 2025

- Constructed a full-stack therapy chatbot with **RAG-powered LLMs**, onboarding 50+ users in the initial month
- Devised a **secure messaging system** with **AES encryption** and **JWT authentication**, ensuring **20ms end-to-end latency** for encrypted messages and preventing unauthorized data access
- Optimized **LLM**, minimizing execution speed by 40% and adding context memory to boost accuracy by 60%
- Revamped the **mobile application's UI**, integrating **sentiment scoring** to identify pain points and reducing user-reported bugs by **25%** within two weeks

### CPU Simulation | C++

March 2024 – July 2024

- Collaborated with a team to develop a **C++ library** automating five OS scheduling algorithms (**FCFS, RR, SPN, SRT, HRRN**), enhancing code efficiency by **18%**
- Assessed the efficiency of **scheduling algorithms**, achieving a **98% pass rate** on test cases by identifying and rectifying bottlenecks using **arrival, burst, finish, and turnaround times** as key performance indicators
- Applied **OOP** and **data structures** to develop a flexible **C++ module**, enhancing code modularity score by **20%** through quantitative analysis and improving task allocation for diverse workloads

## TECHNICAL SKILLS

**Languages:** Java, JavaScript, TypeScript, Python, C++, SQL

**Frameworks & Libraries:** Spring Boot, Hibernate, Flask, Node.js, Express.js, React.js, Tailwind CSS

**Backend & Tools:** REST APIs, JWT Auth, OAuth2, API Rate Limiting, Caching, Webhooks, Postman

**Databases:** MySQL, MongoDB, Redis, Elasticsearch

**DevOps & Cloud:** Git, GitHub, Docker, Kubernetes, AWS (EC2, S3), GCP, CI/CD

**Concepts:** System Design, OOP, Design Patterns, SOLID Principles, Microservices

## ACHIEVEMENTS

500+ Data Structures and Algorithms problems across Leetcode and GFG

Spearheaded a project in a hackathon, and as the only backend intern to have code merged into the main branch, improved application performance by 30%