# MOHIT SONI

Mathura, U.P. 281004

#### **EDUCATION**

#### GL Bajaj Group of Institutions, Mathura, U.P.

2021 - 2025

BTech - Computer Science and Engineering - CGPA - 7+

Mathura, U.P.

• Data Structure and Algorithms (DSA) • Database Management System (DBMS) • Operating Systems

• Oops Concepts

• C++

### **EXPERIENCE**

### SDE Intern at Desi QnA

July 2023 - Nov 2023

- Worked on the Design and Development part of fully responsive webpage for a particular section of Desi QnA.
- Worked on User Verification/Authentication + Engineering challenges of detecting and removing the fake bots and posts.
- Integrated Recaptcha with website Google Layer of Protection for websites.
- Tech Stacks: HTML5, CSS3, JS, TailwindCSS, Reactjs, Node.js, PostgresQL.

#### **PROJECTS**

## $\underline{\textbf{Scaleable Realtime Chat}} \ | \ \underline{\textbf{O}} \ \underline{\textbf{Github}} \ | \ \textbf{Next.JS} - \textbf{Node} - \underline{\textbf{Sockets}} - \textbf{Redis} - \underline{\textbf{Kafka}} - \underline{\textbf{PostgreSQL2025}}$

- Built a scalable architecture using WebSockets, Redis Pub/Sub, and Kafka, ensuring reliable and low-latency communication in **distributed environments**.
- Designed and implemented a distributed real-time chat application capable of handling high-concurrency communication across multiple servers.
- Developed a modular monorepo with Turborepo to streamline interdependent frontend and backend development.
- Utilized Redis as a real-time message broker to overcome WebSocket's limitations on distributed servers, enabling seamless server-to-server communication.

# Notification System ☑ | ♠ Github | Nodejs — Express — Redis — Kafka — Typescript — PostgreSQL2025

- Dynamic Consumer Scaling: Implemented Kafka consumer auto-scaling with partition rebalancing, ensuring consistent throughput and zero lag under high load.
- Failure Recovery and Dead Letter Queue: Designed an adaptive retry mechanism with exponential backoff, using Redis for transient failures and Kafka DLQ for non-retryable errors.
- Achieved 99.99% uptime with auto-healing consumers and failover handling.
- Developed a dynamic routing engine that prioritizes delivery based on user preferences.

# Personalize PDF 🗷 | 🐧 Github Nextjs — Typescript — Pinecone — OpenAI — AWS S3 — Langchain 2025

- Developed a full-stack PDF personalization application using Next.js, React, and Typescript, reducing PDF processing time by 40%.
- Implemented OpenAI embeddings and Langchain for intelligent document processing, achieving 95% accuracy in content extraction.
- Utilized AWS S3 for scalable and secure file storage, reducing storage costs by 30%, and integrated Razorpay for subscription management, handling 100+ transactions per month.

### TECHNICAL SKILLS

Languages: C, C++, JavaScript

Technologies/Frameworks: HTML5, CSS3, JavaScript, React, Nextjs, Tanstack Query, Typescript, Node, Express, Zustand, BullMQ, MaterialUI, MongoDB, PostgresQL, RESTApi, RabbitMQ, GraphQL, PrismaORM, Redis, WebSockets, Webhooks, Kafka, Docker, Linux, AWS S3, EC2, Cloudfront, NGINX

**Developer Tools:** VS Code, Postman, Git and Github, Hoppscotch

Cloud Platform: AWS