Yashaswi Kumar Mishra

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Profile Summary

Backend Developer with deep expertise in building high-performance, scalable systems using Node.js, TypeScript, PostgreSQL, Redis, Kafka, and Docker. Experienced in designing clean APIs, implementing real-time communication, and architecting microservices and event-driven systems. Proficient in GraphQL, REST, and async workflows, with a strong focus on code quality, system reliability, and backend architecture. Passionate about solving complex technical challenges and delivering robust, production-ready solutions.

Skills

Programming Languages: TypeScript, GoLang, JavaScript, Rust, C/C++, Java Frameworks & Libraries: Express.js, Hono.js, Actix, Axum, Gin, GraphQL, tRPC

Databases & ORMs: PostgreSQL, MySQL, SQLite, MongoDB, Redis, Prisma ORM, Drizzle ORM

Technologies & Tools: Docker, Kafka, Git, gRPC, REST, WebSockets

Other Concepts: Distributed Systems, Microservices, Event-Driven Architecture, Caching, Authentication (JWT,

PASETO), Job Queues, Pub/Sub Systems

Education

Manipal Institute of Technology

B.Tech. in Computer Science and Engineering

CGPA: 9.63/10 Relevant Coursework: Object Oriented Programming, Databases, Discrete Mathematics, Data Structures and Algorithms

July 2023 - Present

Projects

Redis Server from Scratch

Built a Redis clone in **Rust**, supporting custom **TCP** protocol, **RESP** parsing, multiple data types (String, List, Hash, Set), expiry logic, and persistence (RDB & AOF).

- Engineered low-level networking and in-memory data structures from scratch
- Designed with future extensibility for async, pub/sub, and clustering

Tech: Rust

UptimeX - Real-time SaaS Monitoring Platform

Developed a real-time monitoring platform to track HTTP/TCP/database servers with WebSocket-powered alerting.

- Integrated GraphQL subscriptions for real-time uptime/downtime notifications
- Generated public status pages, monitored **SSL expiry**, and visualized trends with React Charts Tech: Node.js, Next.js, GraphQL, PostgreSQL, Sequelize, WebSockets, TypeScript

Ping Panda - Real-time Discord Alerting SaaS

Built an event-driven alerting system delivering instant Discord bot notifications for events like sales, signups, and errors.

- Designed a **self-serve event system** using API keys and custom payloads
- Implemented backend in Hono with optimized routing and Prisma-based persistence Tech: Hono.js, Next.js, TypeScript, PostgreSQL, Prisma, Stripe, React Query

Quill - Al Chat with Context-Aware PDFs

Created an AI SaaS platform to chat with uploaded PDFs using vector search and LangChain pipelines.

- Integrated Pinecone for semantic search and Gemini for conversational Al
- Implemented optimistic updates, infinite queries, and Stripe billing Tech: Next.js, tRPC, TypeScript, LangChain, Pinecone, Prisma ORM, Stripe

Certificates

- Developing Back-End Apps with Node.js and Express (IBM)
- React Basics and Advanced React (Meta)
- Programming with Rust Specialization (Edureka)