

Jatin Shrivastav

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SUMMARY

Full-stack engineer with 5 years of experience building TypeScript-based backend systems and React applications. Experienced in distributed systems, event-driven architectures, AWS serverless infrastructure, and performance optimization across high-volume production systems.

SKILLS

Core Languages: TypeScript (Strict Type Safety), JavaScript (ES6+), SQL

Frontend Engineering: React.js, Next.js, TanStack Query, Redux, ReactFlow, Tailwind CSS, Shadcn UI

Backend Ecosystem: Node.js, NestJS, Express.js, tRPC, Drizzle ORM, TypeORM

Database Systems: PostgreSQL, MongoDB, MySQL, Pinecone (Vector DB), AWS DynamoDB

Cloud & Infrastructure: Distributed Microservices, RAG Architecture, AWS (SQS, Lambda, EventBus, Glacier, S3, Cloudwatch), Kafka, Docker

RECENT PROJECTS & UPSKILLING

◆ DIALOGUE CONDUCTOR [Github](#) (August 2025 - Present)

- **Intelligent Transcription & Semantic Retrieval:** Leveraged **OpenAI Whisper** to transform raw audio into precise, timestamped subtitle files. Enabled advanced semantic search capabilities, allowing users to navigate directly to specific moments of interest within uncaptioned media based on spoken context.
- Built a hybrid semantic search system combining OpenAI embeddings with **BM25** ranking for improved transcript retrieval accuracy.
- **Vector ETL Pipeline Engineering:** Architected a Python-driven automated pipeline to process overlapping dialogue segments and extract metadata. Optimized the ingestion layer for **Pinecone Serverless** via high-throughput batch-upserts, ensuring low-latency data availability for vector-intensive applications.

◆ BITEBALANCE [Github](#) (November 2025 - Present)

- **Engineered a High-Fidelity 3-Tier Food Data Pipeline** using NestJS and OpenAI GPT-4o, implementing a fallback strategy that reduced manual nutritional entry by **70%**; utilized **Zod schema validation** and ingredient decomposition to ensure high-fidelity macro-nutrient accuracy for unstructured regional cuisines.
- **Engineered a Robust Cross-Platform Infrastructure** using a monorepo architecture to sync a NestJS API with **Web (React)** and **Mobile (Expo)** environments; leveraged **TypeScript shared contracts** to ensure 100% API-to-Client alignment, while utilizing **centralized Axios interceptors** and **global exception filters** to standardize error handling and authentication flows.

PROFESSIONAL EXPERIENCE

◆ CLOUDIFY [Cloudify Website](#) Copenhagen, Denmark (Remote)

Software Engineer

January 2024 - July 2025

Tech Stack: SST, Drizzle ORM, tRPC, AWS SQS, My-SQL, Vitest, Next.js, AWS Lambda, Shadcn, AWS EventBus, React.js, Reactflow

- Built an event-driven notification system using **AWS SQS and EventBridge** to decouple microservices and process 500k+ daily billing and system alerts with **99.9% delivery reliability**.
- Built a workflow versioning system using **AWS Lambda and SST** that allowed users to safely rollback and replay workflows across releases, reducing production data corruption incidents by ~85%.
- Architected an interactive visual workflow builder using **ReactFlow**, abstracting complex backend webhook routing into a drag-and-drop interface. Optimized network performance by implementing debounced auto-saves and batching graph state payloads, **reducing client onboarding time by 40% while minimizing server load**.
- Developed an internal admin dashboard with Next.js and tRPC to visualize quota usage, billing history, and operational metrics in real time, significantly reducing manual monitoring effort for support teams.

◆ **ORAH (Formerly Boardingware Ltd.)** [Orah Website](#)
(Contractual, Software Engineer)

Auckland, New Zealand (Remote)
August, 2023 - November, 2023

Tech Stack: *Typescript, OOP, MySQL, Node.js, Trunk Based Development*

- Led the **migration of a legacy JavaScript codebase to strict TypeScript** using an **incremental rollout approach**, enabling **zero-downtime deployment** and improving type safety and maintainability across core services.
- Refactored inter-service communication by introducing **DTO-based request validation**, improving API contract consistency and preventing malformed payloads across microservices.
- Built **distributed rate-limiting** and throttling systems capable of handling traffic bursts of 10k+ concurrent requests without overwhelming downstream services.
- Optimized complex MySQL queries and introduced **targeted indexing strategies**, reducing query execution time for high-traffic endpoints by up to 60%.

◆ **FIBONALABS / ARZOOO**
Software Engineer

Bengaluru, India
November, 2022 - August, 2023

Tech Stack: *Typescript, Object Oriented Programming, Design Patterns, Node.js, MongoDB, Mysql, Kafka*

- **Event-Driven Integration:** Engineered a highly scalable **Kafka**-based messaging pipeline to synchronize critical business data across **MySQL, MongoDB, and SAP**. Implemented strict producer-consumer reconciliation, achieving a 98% increase in cross-system data accuracy.
- Improved database performance across **MongoDB and MySQL** by optimizing complex queries, aggregation pipelines, and indexing strategies for high-traffic APIs handling millions of records.
- **Architecture & Reliability:** Modernized monolithic backend modules utilizing strict **TypeScript, Dependency Injection (DI)**, and **OOP Design Patterns**. Reduced the codebase footprint by 27%, simplified **Jest** unit testing, and implemented graceful server shutdown hooks to guarantee zero data loss and 100% state consistency.
- **Containerized local database** and messaging infrastructure with **Docker and Docker Compose**, enabling reproducible development environments and significantly **faster onboarding for new engineers**.

◆ **CLOUDIFY** [Cloudify Website](#)
Software Engineer

New Delhi, India / Copenhagen, Denmark
Jan 2021- October 2022

Tech Stack: *Firebase, AWS DynamoDB, AWS Glacier, Rollbar, Winston, Typescript, Node.js, Vue.js, Redux*

- Improved backend data retrieval performance by introducing **caching layers** and archiving infrequently accessed data to **AWS Glacier**, reducing network overhead by 58%.
- Integrated **Stripe-based recurring and usage-based billing** workflows, supporting **\$25k+ in quarterly payment volume** and improving failed payment recovery through automated dunning flows.
- **Security Hardening:** Audited and secured infrastructure by implementing strict API Gatekeepers and **Role-Based Access Control (RBAC)** for database access.

◆ **EDUCATION**

A.P.J Abdul Kalam Technical University
(B.Tech) Computer Science Engineering

Lucknow, Uttar Pradesh
2017-2021