

Dhruvil Patel

Backend & Mobile Developer

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EDUCATION

LD COLLEGE OF ENGINEERING, BE- Information Technology

2023 – 2027 | Ahmedabad, India

Academic Performance: CGPA 8.48/10.0

PROJECTS

Prediction Market Platform [🔗](#), Go, gRPC, Redis, PostgreSQL, TimescaleDB, Websockets, Kotlin, Jetpack Compose

- **Architected a high-throughput, microservices-based prediction market platform** utilizing **Go** and **gRPC** for sub-millisecond, low-latency inter-service communication via Protocol Buffers.
- **Engineered an in-memory order matching engine** supporting FIFO price/time priority execution, optimizing trade execution speed under high concurrency.
- **Built a real-time market data streaming pipeline** using **Redis Streams** and horizontally scalable **WebSocket** servers to push live order book updates and price feeds to clients.
- **Designed a hybrid database architecture**, leveraging **PostgreSQL** for transactional integrity (user balances, order states) and **TimescaleDB** for fast time-series analytical queries.

Real-Time Ride Booking Platform [🔗](#), Java, Spring Boot, gRPC, WebSockets, STOMP, Redis, MySQL, Redis GEO

- **Architected a microservices ride-hailing system** in **Spring Boot** and **gRPC**, enabling sub-second inter-service communication between booking management and notification microservices.
- **Engineered geospatial driver discovery** utilizing **Redis GEO** spatial indexing, enabling low-latency lookup of nearby drivers within dynamic search radiuses.
- **Implemented real-time trip state synchronization** and bi-directional driver/passenger updates using **STOMP WebSockets** over **SockJS** fallback layers.
- **Designed state machine workflows** for live ride acceptance, trip tracking, and driver location updates to maintain strict state consistency under continuous location polling.

Quora Backend [🔗](#), Java, Spring Boot WebFlux, Kafka, MongoDB, Redis, Elasticsearch, SSE,

- **Architected a reactive, non-blocking microservices backend** using **Spring Boot WebFlux** to process high-concurrency asynchronous requests with minimal thread overhead.
- **Engineered an event-driven messaging pipeline with Apache Kafka** to process asynchronous user notifications, follow events, and view-count updates cleanly without blocking core API threads.
- **Built a high-performance feed generation service** leveraging **Redis caching** and **cursor-based pagination** for continuous, sub-second feed streaming.
- **Integrated Elasticsearch with Server-Sent Events (SSE)** to power full-text search capabilities and push real-time autocomplete suggestions directly to connected clients.

TECHNICAL SKILLS

Languages: C, C++, Java, Kotlin, Go, Rust

Backend & Mobile Frameworks: Spring Boot, Spring WebFlux, Jetpack Compose, Gin, Actix Web

Databases & Caching: PostgreSQL, MySQL, MongoDB, Redis, Elasticsearch, TimescaleDB, Qdrant

Distributed Systems & Messaging: Apache Kafka, gRPC, WebSockets, GraphQL, REST APIs, QUIC, RabbitMQ

Developer Tools & Cloud: Git, GitHub, Firebase, Docker, Kubernetes, GCP

ACHIEVEMENTS

Published ScanMate PdfScanner App [🔗](#), Google Play Store

Solved 400+ Problems on Leetcode [🔗](#), Dhruvil2303

AREAS OF INTEREST & HOBBIES

Area of Interest: Distributed Systems | High-Throughput Architectures | Blockchain & Web3

Hobby: Open-Source Contributing | Strategy Gaming