

RAJ ARYAN

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PROFILE SUMMARY

Backend Engineer with 3+ years of experience building large-scale distributed backend systems at Zomato. Expertise in Golang, Kafka, Redis, DynamoDB, Apache Solr, Elasticsearch, AWS, microservices, caching, fault tolerance, and high-throughput event-driven architectures.

TECHNICAL SKILLS

Languages: Golang, Python, Java, C++, SQL, Dart

Backend and Distributed Systems: Microservices, Kafka, gRPC, REST APIs, Event-Driven Architecture

Databases, Search and Caching: MySQL, PostgreSQL, DynamoDB, Redis, Apache Solr, Elasticsearch, AWS RDS, AWS S3, FreeCache, Roaring Bitmaps

Cloud, DevOps and Observability: AWS ECS, AWS SQS, CodePipeline, CodeBuild, Step Functions, Terraform, Docker, Git, Grafana, Prometheus, New Relic

AI/ML: LLMs, Generative AI, Prompt Engineering, Retrieval-Augmented Generation (RAG), Vector Search, AI Agents

WORK EXPERIENCE

Zomato Limited

Gurugram, Haryana

Software Development Engineer II

July 2025 – Present

- Owned high-scale monetization services including Promos, Rewards, and Subscriptions, operating at **4.3M+ RPM** and enabling real-time discount orchestration, budget enforcement, and eligibility evaluation.
- Led backend design and controlled A/B rollout of **PromoEngine**, an **ML-driven** real-time personalization platform that replaced manual promo workflows and integrated online model inference with strict budget consistency, increasing order rate by **3%**.
- Optimized infrastructure through workload right-sizing, memory tuning, and compute efficiency improvements, reducing annual AWS EC2 spend by **\$16.8K** without impacting SLA or latency targets.

Zomato Limited

Gurugram, Haryana

Software Development Engineer I

June 2023 – June 2025

- Designed and maintained Golang-based microservices powering Homepage, Search, and Dish platforms, serving **300K+ RPM** with high availability, low latency, and fault-tolerant architecture.
- Implemented a **geo-sharded Apache Solr** cluster across four regions to support distributed location-based search, improving query throughput and reducing search latency at scale.
- Built event-driven Kafka consumers processing **7M+ events daily** for real-time indexing into Apache Solr, enabling low-latency search and recommendation updates.
- Architected **Solr Degraded Mode** using AWS DynamoDB as a resilient fallback mechanism, maintaining critical search availability during Solr outages and reducing user-facing failure impact.
- Designed multi-layer caching using Redis and in-memory caches, reducing database queries by **93%**, lowering AWS CPU utilization by **5%**, and improving response times under peak load.
- Collaborated with 5+ cross-functional engineering and product teams to deliver backend integrations across discovery, recommendations, and order-processing workflows, contributing to a **3%** platform revenue increase.
- Leveraged **Roaring Bitmaps** for efficient candidate filtering and constant-time set operations, reducing memory footprint and improving upstream throughput by **20%** for unserviceable restaurant filtering.

Zomato Limited

Gurugram, Haryana

Software Development Intern

June 2022 – Jan 2023

- Reduced Location Search API response time by **52%**, from **500ms** to **240ms**, by integrating Google Autocomplete API and AWS Elasticsearch into the location microservice.
- Reduced incorrect or missing location data from **8.9%** to **0.7%** nationwide by revamping address parsing and validation using Google Reverse Geocode API.

EDUCATION

Indian Institute of Information Technology, Nagpur

July 2019 – May 2023

B.Tech in Computer Science and Engineering

GPA: 8.24/10

Army Public School, Kanpur

July 2018 – April 2019

Senior Secondary, Computer Science

Percentage: 93.8%

ACHIEVEMENTS

- Nominated for the **Rising Star Founders Award at Zomato** for above-expected contributions during the first year.
- Built **Career Copilot**, an **AI-powered** job discovery platform used by software engineers to search and evaluate relevant opportunities using LLM-assisted matching and recommendations.
- Ranked **382nd** out of **12,900** participants nationwide in **Scaler Codex 2.0** hosted by InterviewBit.