

Aryan Walia

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Backend-focused Full Stack developer building reliable, scalable systems with a strong foundation in architecture and system design.

WORK EXPERIENCE

E SOLUTIONS

Backend Developer

Noida, Delhi

Jan 2025 – Present

- Built a **high-concurrency** appointment dispatch system for VUC using Redis atomic locks and optimized SQL transactions, achieving **sub-50ms latency** and **eliminating race conditions** under load.
- Designed a scalable **data ingestion architecture (500GB+)** using Airflow, Iceberg, and Trino for optimized OLAP querying over **compressed parquet files**.
- Engineered a plug-and-play Identity Provider using Bun & ElysiaJS with **passwordless WebAuthn**, stateless RS256 JWT + JWKS verification, Redis-backed challenge management, and **real-time geo-aware session revocation**.

CMS AND APPOINTMENT BOOKING WEBSITE

Freelance Full Stack Developer

Remote

Feb 2026 – Present

- Delivered a **production-ready content management platform** end-to-end under tight timelines, architecting a secure Admin Dashboard that streamlined the publishing workflow and enabled management of **10,000+ content pieces** at launch.
- Built an automated GenAI pipeline for **real-time vernacular translation** and structured metadata extraction, **reducing manual editorial effort by 90%** and significantly accelerating global content rollout.

TICKETING AND SUPPORT SYSTEM

Freelance Backend Developer

Remote

Oct 2025 – Nov 2025

- Built a **scalable, multi-tenant ticketing system** with RBAC and automated assignment using Node.js, Express, MongoDB, Redis, BullMQ, serving **200–250 users across 5+ teams**.
- Engineered a **real-time notification and messaging pipeline** using Redis Pub/Sub, Socket.io, PostgreSQL, handling **10k+ concurrent requests/min** with horizontal scalability.

SKILLS

Backend Development: Node.js, Django, REST APIs, Microservices, Event-Driven Architecture

Frontend Development: React, Next.js

Databases: PostgreSQL, MySQL, MongoDB, Redis, Tarantool

Infrastructure & DevOps: Docker, Nginx, CI/CD

Observability: Pino, Grafana, Prometheus

Languages: Python, JavaScript, TypeScript

Batch And Stream Processing: Kafka, Spark, Flink

AI/ML (Additional): Generative AI, NLP, LLM Fine-Tuning (LLaMA, OpenAI), OCR, LangChain, LangGraph, LangSmith

PERSONAL PROJECTS

System Design Articles

Articles talking about system design of [real-time video conferencing apps](#) like Zoom, [rate limiters](#), [flash sale problem](#), [designing modern dashboards](#) and much more ..

Database Deep Dive Series

Wrote articles talking about database discussions like [OLTP vs OLAP](#), [B Trees vs LSM trees](#), [CockroachDB](#), [TarantoolDB](#), [MVCC](#), and much more.

Finetuning Llama

Fine-tuned the LLaMA 2 7B pretrained model using parameter-efficient techniques such as LoRA and QLoRA on an SQL dataset, following meticulous preprocessing to align the data with LLaMA's input requirements.

Data Engineering and AI Articles

Articles that explore production grade data engineering and AI pipelines built for scale, wrote articles on [ANN algorithms at scale](#), [Trino](#) to query files on blob, [building distributed graphs at scale](#), and much more.

EDUCATION

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY (GGSIPU)

Bachelor of Technology

June 2025

Cumulative CGPA: 8.5