

# Dhruv

Python Developer | Backend Engineer | Trading Systems | AI & Data Science

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## Professional Summary

Backend-focused Python Developer with experience designing and building production-grade backend systems for trading platforms, real-time alert pipelines, and data-driven applications. Strong in FastAPI, RESTful API design, asynchronous processing, relational databases, caching, background jobs, and system design. Experienced in working with confidential production systems, emphasizing reliability, scalability, observability, and failure handling.

## Experience

### **Software Developer Intern — QuantTradeAI LLP (Feb 2025 – Dec 2025)**

- Backend services for order placement, lifecycle management, and trading alerts
- REST APIs using FastAPI and async background workers with Celery & Redis
- Idempotent execution, retries, and partial-failure recovery
- PostgreSQL/SQLite databases, caching layers, and monitoring pipelines

## System Design Case Studies

- Trading System Architecture — [github.com/22f3002319/trading-system-design](https://github.com/22f3002319/trading-system-design)
- Real-Time Trading Alerts Architecture — [github.com/22f3002319/trading-alerts-system-design](https://github.com/22f3002319/trading-alerts-system-design)

## Projects

- ARIA v2.0 — Production-grade sign language interpreter (FastAPI, JWT, async services)
- IITM Assignment API — FastAPI service for file-based automation
- LLM Agent — Deployed agent orchestration system
- Auto PPT Generator — Automated content-to-slide service
- Vehicle Parking Management System — Redis & Celery-based backend system

## Technical Skills

Python | FastAPI | Django | REST APIs | WebSockets | PostgreSQL | SQLite | Redis | Celery | Docker | System Design | Event-Driven Architecture | Monitoring | Fault Tolerance

## Education

B.Tech in Automation & Robotics Engineering — GGSIPU (2022–2026)

BS in Data Science & Programming — IIT Madras (2022–2026)