

Abhishek Kumar

✉ abhishekkumar500a@gmail.com | 📞 +91 7970438726 | 🌐 github.com/abhishek | 🔗 linkedin.com/in/abhishek

SUMMARY

Experienced Backend Developer from IIT Delhi and a strong background in designing and implementing **scalable micro-services and high-performance data processing systems**. Skilled in **Python, FastAPI, Java, PostgreSQL** with expertise in **asynchronous processing, message queues, agentic AI workflows and real-time data handling**.

WORK EXPERIENCE

Limitless Neurons, Hyderabad | *Software Engineer*

May 2025 - Present

- **Shapes Chat** | *FastAPI, SQLite, Langchain, Langgraph*
 - * **Architected and built a high-performance RAG system** enabling users to chat with **real-time RSS feeds**, integrating multiple **LLM providers via LiteLLM**, reducing vendor lock-in and optimizing query costs.
 - * Engineered complex **agentic workflows using LangGraph** to perform autonomous multi-step analysis (**conflict detection, topic clustering**) on aggregated news streams, delivering deep insights beyond simple retrieval.
 - * Implemented a local-first **Vector Search architecture using ChromaDB**, optimizing retrieval precision with hybrid search strategies (**semantic + keyword**) and dynamic context window management.
 - * **Developed a streaming response infrastructure using Server-Sent Events (SSE) and WebSockets**, enabling real-time token **streaming for AI responses**, significantly improving perceived user latency.
- **Autogrid** | *FastAPI, SQLite, React, Electron*
 - * **Architected an Async Execution Engine** using Python asyncio, orchestrating **100+ concurrent AI/API** tasks across complex **DAGs** while enforcing granular rate limits to ensure system stability.
 - * **Designed a type-safe Plugin System** with Protocols and Pydantic, standardizing config validation and lowering integration effort by 40% for services like **OpenAI and Clearbit**.
 - * **Engineered a local-first Desktop App** bundling FastAPI and React within **Electron**, automating cross - platform builds (**macOS/Windows**) via PyInstaller and custom CI pipelines.

Cogoport, Gurgaon | *Software Development Engineer - 1*

September 2023 - April 2025

- **Business Finance** | *Kotlin, Micronaut, Postgresql, RabbitMQ, FastAPI*
 - * **Developed robust APIs** leveraging complex **SQL queries** within the **Centralized Finance system**, facilitating **payment processing for 100+ daily transactions** and ensuring accurate financial reporting.
 - * **Engineered IRN generation** for real-time **e-invoice declaration in China** utilizing the **Aisino platform**, achieving **100%** compliance with tax regulations and slashing **manual intervention by 85%**.
 - * **Optimized concurrency via ThreadPool**, cutting API runtime by **40%**, boost performance of **10+ APIs**.
- **Job Card** | *Python, FastAPI, Postgresql, Tortoise-ORM, Apache Kafka, Websockets*
 - * **Leveraged Apache Kafka for real-time data streaming** and designed a **job allocation logic** optimized for operator expertise, stickiness and organizational requirements.
 - * **Implemented WebSockets to establish real-time communication between client and server**, reduced data latency by **90%** and improved user engagement by **50%**.
 - * **Automated task processing using cron jobs**, reducing failures by **60%** and enhancing execution efficiency.
- **Shipment Execution** | *Python, FastAPI, Postgresql, Peewee*
 - * **Contributed to end-to-end migration** of Shipment business logic from **Ruby on Rails to FastAPI**.
 - * **Engineered robust, scalable APIs** for invoicing, reducing API runtime by **70%** and optimizing DB integration; leveraged **Redis, Celery, and Flower** to efficiently manage delayed tasks to boost system performance by 60%.
 - * **Implemented a cancellation flow** for shipment and services along with code enhancements, resolved **25+ bugs**.

EDUCATION

Indian Institute of Technology, Delhi

2019 - 2023

Bachelor of Technology in Chemical Engineering

CGPA: 8.386/10

TECHNICAL SKILLS

Programming Languages: C++, Python, Java, JavaScript, Kotlin, SQL

Frameworks/Libraries: FastAPI, Langchain, Langgraph, Springboot, Micronaut, Node, React

Infrastructure/Tools: PostgreSQL, Kafka, RabbitMQ, ChromaDB, Git, Celery, WebSocket, Redis