Kumar Abhinav

Software Developer

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Core Technologies & Skills

Distributed System & API Development

FastAPI, REST APIs

Asynchronous Programming, Performance Optimization

Data Cleaning,

Data Wrangling

ETL Pipelines

Relational & NoSQL Databases,

AI & Machine Learning:

LangChain, Streamlit,

Al Agents

Experienced Software Developer specializing in distributed systems, API development, and scalable ETL pipelines. Proven track record in modernizing legacy systems, optimizing workflows, and delivering high-performing solutions. Adept at leveraging AI/ML technologies to enhance operational efficiency, improve scalability, and meet critical business objectives under tight deadlines.

Career Highlights

- Workflow Automation & API Development (LinkedIn): Developed multiple APIs for an internal chatbot and led the migration of the existing Java-based backend to a Python FastAPI architecture. Successfully deployed to production with zero defects, enhancing system efficiency, maintainability, and response times
- Public API Development (RFXCEL): Built a Java-based public API for SAP integration, automating data processing and improving scalability, leading to a 30% reduction in processing time.
- Data-Driven Systems & Real-Time Analytics: Led cross-functional teams to develop a real-time analytics product using Elasticsearch and NoSQL, reducing data retrieval latency by 50%. Successfully launched as a new revenue-generating product, driving business value and operational improvements.
- > **Global Inventory Reduction Project (VVF India Limited)**: Reduced global inventory through data-driven categorization and forecasting.

Work Experience

LinkedIn | **Sr. Software Engineer (Contractor)**, Mountain View, CA.

October 2024 to Present

In this role, I develop and deploy AI-driven automation solutions using Python and FastAPI to enhance internal operations. By modernizing legacy systems, integrating data sources, and improving process efficiency, I reduce manual intervention and improve system resilience, all of which contribute to a more streamlined and scalable infrastructure.

Specific projects:

- API Development & Integration: Designed and integrated FastAPI to streamline connections with ServiceNow, enhancing
 workflow efficiency and reducing process execution times by 40%. This led to improved operational responsiveness.
- Legacy Migration & Performance Enhancement: Built and deployed new FastAPI endpoints to centralize on-call team
 information and handle diverse user queries. Successfully migrated from an existing Java-based backend, improving
 maintainability and enabling more responsive, flexible service delivery.
- Process Optimization & Benchmarking: Conducted in-depth performance analysis between the Python-based API and legacy
 Java REST API, evaluating metrics such as latency, throughput, and error rates. Leveraged insights to optimize API design, enhance scalability, and reduce system errors, resulting in a more robust infrastructure.
- Daemon Orchestration with Temporal: Migrated legacy background daemons to Temporal for fault-tolerant, stateful workflows. This significantly reduced downtime, enabled automatic retries, and provided improved visibility via the Temporal Web UI. The new orchestrated approach minimized manual intervention and streamlined operational overhead.

RFXCEL (Part of Antares Vision). | Software Engineer/ Tech Lead - Data Analyst/ San Ramon, CA.

May 2023 - Dec 2024

After leaving VVF India Limited to pursue an MS in Business Analytics, I joined RFXCEL as a summer intern. My contributions during the internship led to a full-time offer as a Tech Lead - Data Analyst and later converted it into a Software Engineer. I drive data-driven initiatives, design scalable ETL pipelines, and implement real-time analytics solutions, enhancing decision-making and operational efficiency.

Specific projects:

Public API Development for SAP Integration: Developed a Java-based public API for AbbVie's Luprolink platform to automate
data processing between SAP system and internal databases and improving scalability, contributing to 30% faster operations.

- Data-Driven Systems & Real-Time Analytics: Led the design & development of data-driven systems and analytics products, utilizing Elasticsearch and No-SQL reducing data retrieval latency by 50%, improving real-time decision-making. 25% improvement in operational efficiency. Impacted 10000 + Stores and 1000 + Distributors.
- ETL Data Pipeline & Data Processing: Designed and implemented a custom ETL pipeline in Java, transforming transactional data from SQL to NoSQL (Elasticsearch), improving data latency and reducing operational costs. Automated data cleaning, schema matching, and deduplication, ensuring high data accuracy while minimizing SQL database load.
- Data Modeling: Designed and implemented a custom NoSQL data model in Elasticsearch, optimizing schema structure for fast data retrieval, reduced query complexity, and enhanced data visualization in Kibana. Minimized nested objects, improving query performance and supporting real-time analytics.
- Advanced Analytics: Led advanced data analytics initiatives using Python, SQL, Tableau, and Generative AI LLMs to develop
 predictive and prescriptive supplier scorecards. Delivered actionable insights to key clients (e.g., Cardinal, Walgreens), improving
 supplier performance by 30% and reducing internal workload by 40%. Provided data-driven recommendations that streamlined
 supplier file processing and enhanced decision-making.

Vvf India Limited | Supply Chain Analyst - Operations, Mumbai, India.

Dec 2017 to Aug 2022

As a Supply Chain Analyst, led several key projects that optimized the supply chain process, improved manufacturing efficiency, and successfully passed internal audits by McKinsey. Achieved global inventory reduction and led the SAP GST Implementation roll-out team.

Specific projects:

- **GST-Ready SAP Implementation**: Led the SAP implementation project to meet new GST requirements. Streamlined end-to-end processes—from purchase orders to cash flow—ensuring on-time and fully compliant deployment.
- Global Inventory Analysis: Conducted in-depth inventory data analysis by creating segmentation models using SQL and Python. Identified slow-moving, obsolete, and dead stock through data clustering, leading to inventory reductions of 25% and savings of \$X million.
- Manufacturing Cost Analysis: Built predictive models using Python for cost and production analytics, detecting manufacturing bottlenecks and operational inefficiencies. Reduced manufacturing losses by 22% through data-driven Strategic Planning, Capacity Management and corrective actions, resulting in annual savings of \$X million.
- Forecasting & Demand Planning Analytics: Created demand forecasting models using Excel, SQL, and Tableau by integrating
 historical sales, market trends, and supplier data. Improved forecast accuracy by 20%, reduced stockouts, and increased on-time
 delivery rates by optimizing data-driven planning processes.

Other Experience:

India Power Limited | Supply Chain Analyst, Kolkata, India
Bajaj Energy Limited | Supply Chain Project Manager, Noida, India
Abhijeet Projects Limited | Supply Chain Project Manager, Ranchi, India
Airox Nigen | Business Development Manager, Gurgaon, India

Mar 2016 to Nov 2017 Feb 2013 to Mar 2016 Sept 2010 to Jan 2013 April 2009 to Sept 2010

Skills

Technical: Python, Java, FastAPI, MySQL, NoSQL, Elasticsearch, Kibana, Tableau, Advanced MS Excel, Streamlit, LangChain, Azure **Functional:** Distributed Systems, API Development, Performance Optimization, Asynchronous Programming, Process Mapping, Delivery Presentation, Agile, SDLC, Jira, Git

Education and Academic Background

California State University East Bay, Hayward, CA

M.S. in Business Analytics, Aug 2022 to Dec 2023

Sathyabama Deemed University Chennai, India

B.Tech. in Chemical Engineering (Major), Aug 2005 - April 2009B.E in Computer Science & Engineering (Minor), Aug 2006 - April 2009