

# 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:**

Agentic AI.

Seasoned Software Engineer with a strong background in distributed systems, API development, and large-scale data pipelines. Proven track record of modernizing legacy applications, improving quality & reliability, and delivering high-volume, scalable solutions in dynamic environments. Passionate about asynchronous design patterns, test-driven development, and continuous integration to enhance overall engineering productivity.

## Career Highlights

- > **AI & Automation Mastery (LinkedIn):** Engineered AI-powered APIs using Python/FastAPI to automate IT ticket resolution via ServiceNow-JIRA integration, migrated a fragmented Java chatbot backend to a unified Python architecture, and orchestrated fault-tolerant workflows with Temporal—cutting resolution times by up to 45% and slashing operational overhead.
- > **Cutting-Edge Analytics & Cost Optimization (RFXCEL):** Spearheaded the launch of a next-gen supply chain dashboard for the Kingdom of Bahrain, leveraging a secure SQL-to-Elasticsearch pipeline to reduce data latency by 50% and boost efficiency by 25%. Deployed predictive models that enhanced supplier performance by 30% while streamlining operations and driving a 15% reduction in expenses.

## 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:** Integrated ServiceNow and JIRA to build an AI-driven automation solution that analyzes IT tickets, mines internal knowledge bases for solutions, and auto-closes confirmed ticket improving MTTR by ~40-45%, lowering operational costs by 30 -35 % significantly improved engineering productivity and quality.
- **Backend Migration & Scalability:** Led a complete backend migration of an internal chatbot from Java to Python, consolidating fragmented codebases into a single multi-tier system with asynchronous workflows. Improved operational efficiency by ~40%, lowering infrastructure costs and enabling 24x7 reliability.
- **Asynchronous Daemon Orchestration:** Implemented Temporal for migrating legacy background daemons into fault-tolerant workflows. Enhanced issue detection through real-time logs and drastically minimized downtime via automatic retries and improved operational visibility.
- **Build & Dependency Optimization:** Refactored ~45% of redundant dependencies in the chatbot package, reducing build times and package size by nearly half, bolstering continuous integration speeds and developer satisfaction.

**RFXCEL (Part of Antares Vision) | Software Engineer/ Tech Lead – Business 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 transitioned it into Software Engineering role. I drive data-driven initiatives, design scalable ETL pipelines, and implement real-time analytics solutions, & enhancing decision-making.

### Specific projects:

- **Public API Development for SAP Integration:** Designed, developed, and implemented a Java-based public API for AbbVie's Luprolink platform to automate data processing between their SAP system and the platform. This solution eliminated manual order creation and enabled real-time data synchronization, accelerating order processing by 30%, and improved system scalability.

- **Expectation Management Feature:** Designed and developed an Exception Management Email Configuration feature using Java (Spring Boot) and Angular, enabling dynamic email handling via REST API and improving exception notifications for 500+ enterprise users.
- **Analytics System Design & Implementation:** Spearheaded the design, development, and implementation of a comprehensive supply chain analytics dashboard for the Kingdom of Bahrain, their largest revenue client. Despite ambiguous requirements and no pre-existing data infrastructure, I architected a secure data pipeline that migrated critical SQL data to a NoSQL system using Elasticsearch. This initiative reduced data retrieval latency by 50%, enhanced real-time decision-making, and drove a 25% improvement in operational efficiency.
- **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.
- **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 | Manager Business & Data Analyst - Supply Chain**, Mumbai, India.

Dec 2017 to Aug 2022

As the Manager Supply Chain 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.

**Early Career: India Power Limited, Bajaj Energy Limited, Abhijeet Projects Limited, Airox Nigen.**

Apr 2009 – Nov 2017

Various Locations

- Roles spanning data analysis, business development, and project management. Developed foundational expertise in analyzing data for key stakeholders, building early prototypes of automated analytics, and leading cross-functional collaboration.

#### Skills

**Technical:** Python, Java, FastAPI, MySQL, NoSQL, Elasticsearch, Kibana, Tableau, Advanced MS Excel, Lang Chain, Azure, AWS,

**Functional:** Distributed Systems, API Development, Performance Optimization, Asynchronous Programming, Process Mapping, Delivery Presentation, Agile, SDLC, Jira, Git, Temporal, Unit Testing, Code Reviews, Agile, SDLC, CI/CD, Docker, Jenkins.

#### 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 2009

**Computer Science & Engineering (Elective)** Aug 2006 – April 2009