





Syed Mohd Haider Rizvi

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Summary

Highly analytical and results-driven Software Engineer with 4 years of experience specializing in Java, Python, Spring Boot, and cloud technologies (GCP, AWS). Proven ability to develop and optimize scalable microservices and AI-powered solutions for the financial sector. Delivered \$120K annual savings at Ford and improved API performance by 5x at HSBC. Creator of open-source projects PyVisualizer (architectural intelligence) and PipelineIQ (predictive analytics for BigQuery).

Skills

- **Programming Languages:** Java, Python, SQL
- **Frameworks & Tools:** Spring Boot, FastAPI, Docker, Kubernetes, LangChain
- **Cloud Platforms:** Google Cloud Platform (GCP), Amazon Web Services (AWS)
- **Databases:** PostgreSQL, NoSQL, BigQuery
- **Development Practices:** Microservices Architecture, CI/CD, Unit Testing, RESTful APIs, System Design, Object-Oriented Programming
- **AI & Data:** Generative AI, Data Visualization, Prompt Engineering Application, Machine Learning
- **Leadership & Collaboration:** Agile Methodologies, Stakeholder Collaboration, Team Mentoring

Experience

Senior Software Engineer FORD *Chennai, TN, IN* **08/2024 - Present**

- **Spearheaded** the development of a **large-scale** data product handling 25 PB of data, focusing on feeds processing, prediction and scalability.
- Developed a web-based automation tool within a limited timeframe, reducing manual feed setup time from 3-5 hours to 30 seconds, resulting in **\$120,000 in annual cost savings**.
- Collaborate with global teams and report directly to the Global Manager (USA), ensuring alignment on project goals and delivering high-quality, scalable solutions that meet business objectives.

Senior Software Engineer HSBC *Pune, MH, IN* **01/2022 - 08/2024**

- Led the design and development of **enterprise-level microservice applications** for Kinetic, generating over **\$1 billion annual turnover**.
- **Developed NLP-powered AI solutions** using OpenAI's GPT models, integrated with enterprise data pipelines, enabling users to create SQL queries via natural language, reducing **development time by 80%** and improving data accessibility for financial reporting.
- Enhanced API performance by **5x**, enabling faster transactions for **300,000 business customers**.
- Optimized **microservice architecture**, reducing **infrastructure costs by 20%** while ensuring **high availability** and compliance with financial industry regulations.
- **Collaborated** with **global teams** to deliver end-to-end scalable cloud solutions using **GCP, Docker, Kubernetes**, and **CloudSQL**, enabling seamless **CI/CD** pipelines and reducing deployment time.
- **Mentored** new joiners and juniors, providing guidance on development best practices and financial technologies.

Programmer Analyst Trainee Cognizant *Bengaluru, KA, IN* **08/2021 - 01/2022**

- Implemented Big Data solutions using Java, SQL, Hadoop, and AWS for a leading US insurance company, contributing to improved data processing and analytical capabilities.
- Initiated a knowledge-sharing forum for new engineers, fostering collaboration and accelerating the adoption of new technologies.

Selected Projects

- **PyVisualizer (Open Source):** An architectural intelligence tool that transforms Python codebases into interactive diagrams, leveraging AST parsing and D3.js visualizations. Enables rapid understanding of code structure and dependencies.
- **PipelineIQ (Open Source):** An AI-powered platform providing predictive intelligence for BigQuery workflows. Features ML models that predict query performance with up to 84% accuracy, a dashboard for visualizing query complexity, and pre-execution forecasting of resource utilization.
- **Business Finance Management (HSBC):** Designed and implemented a scalable product for transaction categorization, cash flow analysis, and management, significantly improving financial insights for 500K+ businesses.
- **MI Dashboard and Analysis (HSBC):** Created a comprehensive dashboard for business decision-making using BigQuery, Dataflow, and Looker, enabling real-time, data-driven financial insights with 0 error rate.

Education

Bachelor of Technology SRM CEM **08/2017 - 08/2021**

- Major in **Computer Science and Engineering**
- *Won Best Project Award*

Awards & Achievements

- Innovator, Ford (2024) • Pat on the Back, HSBC (2024) • Rated Top Performer, HSBC (2023) • GCP Cloud Hero (10/2023)