Varsha Jolly Kattampally

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Data Engineer

Data Engineer with experience building and maintaining batch and streaming data pipelines in enterprise environments. Strong background in Python- and Java-based data processing, message queues, and data warehouses. Experienced in executing well-defined requirements with a focus on correctness, performance, and reliability.

Work Experience

Data Engineer — July 2019 – June 2022
Target Corporation — Bangalore, India

- Designed and maintained production ETL pipelines in Python to process **4M+ JSON records** from internal APIs, reducing execution time by **80%** through parallel processing.
- Implemented a **Java-based Kafka pipeline** to ingest and process **15M AVRO records daily** into the enterprise data warehouse.
- Built a reusable **test data generation tool** capable of producing **3M records in under 60 seconds**, reducing test data preparation time by **98%**.
- Supported production data pipelines by monitoring job execution, investigating failures, and resolving data processing issues as they arose.

Software Engineer — August 2024 – Present
Alliant National Title Insurance Company — Remote, United States

- Built and supported a **daily-running email data pipeline** in Microsoft Fabric to ingest email data, generate embeddings using **Azure AI services**, and index processed data for downstream applications.
- Implemented AI workflows using **Azure AI Foundry Prompt Flow**, configuring prompt flows to consume indexed data and generate responses for an internal chatbot application.
- Assisted with backend infrastructure setup and deployment, including **server configuration, domain setup, SSL certificates, and Nginx configuration**.
- Developed backend services using **Node.js and .NET**, implementing assigned features and supporting existing internal services.
- Automated scheduled cloud capacity management using **PowerShell**, pausing and resuming Microsoft Fabric resources based on business hours to reduce operational costs.
- Developed a frontend location visualization feature using **Google Maps** as part of an existing application built with Vue.js

Project

Property Insight — Sep 2023 – May 2024
(Industry-Sponsored — Alliant National)

- Developed backend services using **Python and Flask** to generate property insights based on predefined business rules, reducing pre-commitment generation time from **weeks to minutes**.
- Assisted with deployment on **Microsoft Azure VMs** and CI/CD workflows to enable automated builds and deployments triggered by Git pushes.

Technical Skills

Programming Languages: Python, Java, JavaScript, SQL, PowerShell, C#

Backend & Data Engineering: ETL Pipelines, Kafka, REST APIs, Microsoft Fabric

Cloud Platforms & Automation: Microsoft Azure, Azure AI Services (usage), Docker, Kubernetes, Nginx, CI/CD

Databases & Storage: PostgreSQL, MySQL, MongoDB, Snowflake, Redis

Frontend (Limited Exposure): Vue.js, Angular

Education

Master of Science in Computer Science — May 2024
University of Colorado Boulder, USA — *GPA: 3.93 / 4.00*

Bachelor of Technology in Electronics and Communication Engineering — June 2019
National Institute of Technology Calicut, India — *GPA: 8.40 / 10.00*

Certification

AWS Cloud Practitioner — August 2024