

Aishwarya Gurrala Muni

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EDUCATION

University of Cincinnati

Master of Science in Business Analytics (GPA: 3.82/4.0)

- Completed Graduate Certificate in Artificial Intelligence with coursework in applied AI and intelligent systems.

Cincinnati, OH

Aug 2024 – Dec 2025

Presidency University

Bachelor of Technology, Computer Science and Engineering

Bangalore, India

Jun 2015 – May 2019

EXPERIENCE

Graduate Assistant – Data Engineering & ML Research

University of Cincinnati

Cincinnati, OH

Aug 2024 – Dec 2025

- Built Python-PySpark data pipelines for 2M+ multimodal image-text records, supporting scalable ingestion, enrichment, and analytics-ready datasets for ML workflows.
- Designed modular data workflows with validation, schema consistency checks, and reusable transformations aligned with enterprise data engineering practices.
- Optimized distributed Spark-style workloads using partitioning, caching, and shuffle reduction, improving runtime efficiency and pipeline reliability by 28%.
- Applied distributed computing concepts such as data locality, parallel execution, and resource optimization to improve cluster utilization.
- Developed Python-based automation and evaluation pipelines integrated into ML data workflows, reducing manual effort by 40% and improving reproducibility.
- Collaborated in an Agile research environment with regular peer programming, design reviews, and independent ownership of pipeline components.

Senior Data Engineer – Risk & Analytics Platforms

Amazon India

Bengaluru, India

Apr 2022 – Jun 2024

- Designed, built, and supported large-scale distributed data pipelines processing 1B+ supply-chain records daily using SQL and Python.
- Delivered analytics-ready datasets used by 10+ teams for risk detection, compliance monitoring, and operational reporting.
- Led migration of 15+ legacy workflows into Amazon's enterprise data platform, performing schema validation, lineage checks, and data quality controls.
- Improved pipeline performance by 25% through partition optimization, join strategy refinement, and data layout improvements.
- Built automated monitoring and RCA workflows with dashboards, reducing operational handling time by 20% and recurring failures by 30%.
- Partnered with 5+ platform, security, and analytics teams to align pipelines with enterprise data architecture and governance standards.

Data Engineer – Seller Risk & Operations Analytics

Amazon India

Bengaluru, India

Jun 2020 – Apr 2022

- Developed ETL pipelines and analytical datasets over 200M+ shipments and 40M+ invoices supporting fraud detection and seller risk modeling.
- Authored and optimized 50+ SQL-based transformations and KPI pipelines to improve data freshness and reporting reliability.
- Supported 15+ downstream dashboards by maintaining consistent, well-documented datasets for analytics consumers.
- Optimized Hadoop-based pipelines via partitioning and join tuning, improving ingestion stability by 20%.
- Worked independently across 6+ concurrent data initiatives while collaborating with stakeholders to meet tight delivery timelines.

CORE DATA ENGINEERING SKILLS

Programming: Python, SQL, R, Java

ETL & Orchestration: Apache Airflow, AWS Glue, Azure Data Factory, SSIS, Informatica, dbt, Alteryx

Big Data & Streaming: Apache Spark, Kafka, AWS Kinesis, Databricks

Data Storage: S3, Redshift, Snowflake, SQL Server, Azure Synapse

CI/CD & DevOps: GitHub Actions, Jenkins, Docker, Terraform

Visualization: Tableau, Power BI, Qlik

Techniques: Data Modeling, Star/Snowflake Schema, SCD, Partitioning, Performance Tuning

Soft Skills: Problem-Solving, Communication, Requirements Gathering