

Experience

Dow Silicones Deutschland GmbH

Master Thesis Researcher – Data Science | May 2024 – Jul 2025

- Applied statistical and correlation analysis to polymer manufacturing datasets across **10+ process checkpoints**, identified key quality drivers (**>70% correlation** with polymer quality), and optimized operating parameters via data-driven experimentation.
- Developed and validated machine learning models using historical polymer batch data to predict final product properties based on raw material characteristics and process conditions, achieving **90% accuracy** and reducing experimental iterations by **50%**.
- Led experimental data standardization initiatives across EMEA research teams by establishing structured workflows and analytical practices, driving adoption through workshops and training sessions and reducing manual data preparation **effort by 20%**.

Carl Zeiss AG

Data Engineer Intern | Dec 2023 – Apr 2024

- Designed and deployed an automated document intelligence pipeline using Python, NLP entity extraction, and PDF processing to process 10,000+ monthly invoices, **reducing manual effort by 70%**.
- Deployed Azure Data Factory and Databricks **ETL pipelines** to integrate multiple carrier and third-party logistics (**3PL**) **APIs** into Azure Cosmos DB, enabling near real-time shipment tracking and centralized logistics data management.
- Developed Power BI dashboards to analyze logistics KPIs and shipment performance, enabling data-driven decisions that contributed to a **20% reduction** in delivery delays and improved supply chain visibility.

Bosch Rexroth AG

Business Intelligence Intern | Mar 2023 – Aug 2023

- Designed a master data management solution with historical data tracking capabilities and developed FastAPI-based APIs integrating data from Azure SQL and MongoDB to ensure accurate **billing for 2,000+ customers**.
- Automated invoice generation and reporting using Microsoft Power Platform (Power Automate, Power Apps, Power BI) and Python, improving **operational efficiency by 30%**, **reducing errors by 60%**, and saving **35 hours/month in manual effort**.

Amazon

Project Management Intern – Data Analytics | Jul 2022 – Dec 2022

- Developed AWS-based ETL pipelines using S3, Lambda, and Redshift to automate ingestion and processing of EMEA food safety compliance audit datasets, centralizing **100K+ records** for **scalable analytics** and reporting workflows.
- Enhanced EMEA food safety compliance monitoring by developing AWS QuickSight dashboards that unified audit and ticketing data, improved KPI visibility for **100+ stakeholders**, and contributed to a **20% reduction** in audit findings.

Divya Industries

Production Engineer | Apr 2019 – Oct 2020

- Led data-driven process optimization initiatives, increasing manufacturing **efficiency by 15%** and lowering **operating costs by 10%**.
- Integrated laser cladding solutions into manufacturing workflows, enhancing wear resistance and extending **product life by 30%**.

Education

M.Sc. Scientific Instrumentation

Ernst-Abbe-Hochschule Jena, Germany | **Graduated 2025**

B.Tech. Mechanical Engineering

JNTU Hyderabad, India | **Graduated 2019**

Skills & Languages

Programming Languages

Python, SQL

Data Engineering

ETL/ELT, Apache Spark, Databricks, Azure Data Factory, dbt, Apache Airflow, Apache Kafka

Databases

PostgreSQL, MySQL, MongoDB, Azure Cosmos DB

Machine Learning & AI

Scikit-learn, TensorFlow, PyTorch, Generative AI, RAG, LLMs

Cloud Platforms

Microsoft Azure, AWS

Data Platforms & Warehousing

Microsoft Fabric, Snowflake, Azure Synapse Analytics, Delta Lake

BI & Analytics

Power BI, Tableau, AWS QuickSight

Development & Automation

FastAPI, GraphQL, Git, Docker, Microsoft Power Platform (Power Automate, Power Apps, Power Pages)

Languages: English (C1), German (B2)