Shamkhal Hajiyev

Data Scientist | Machine Learning Engineer

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LinkedIn | GitHub | Portfolio

SUMMARY

Results-oriented **Data Scientist & Machine Learning Engineer** with **4+ years of experience** in delivering **end-to-end data science solutions** across predictive modeling, time series forecasting, and advanced analytics. Skilled in **Python, SQL, and cloud-based platforms (Azure ML, Databricks, PySpark)**, with a strong background in **Statistics** and **Machine Learning**. Proven expertise in designing and deploying **scalable ML pipelines**, automating **ETL workflows with Airflow**, and integrating models into **real-time business applications**. Adept at combining **data engineering, model development, and interpretability techniques (e.g., SHAP)** to generate actionable insights that support strategic decision-making.
Collaborative and agile professional with experience in **cross-functional teamwork, stakeholder communication, and mentoring**, passionate about applying data science to solve complex problems and drive innovation in dynamic business environments.

WORK EXPERIENCE

Align Technology - Wroclaw, Poland
Data Science Specialist
01/2023 – Present

- **Order Conversion:**
    - Designed and deployed an ensemble model in **Azure ML (CatBoost, LightGBM, XGBoost)** to predict the probability that an order request converts into a completed case, delivering real-time Power BI insights with SHAP-based interpretability.
    - Built an **Azure ML** model to forecast conversion timelines, integrating results into Power BI dashboards for accurate sales planning and business timeline forecasting.
- **Customer Churn Prediction:** Developed and deployed a churn prediction system in Azure ML with scalable feature engineering and ensemble modeling, achieving high-accuracy predictions; integrated SHAP explanations and automated reporting for actionable retention insights.
- **Forecasting Modelling:** Designed and deployed **LSTM** and **ARIMA** models to generate monthly and quarterly forecasts to predict feature sales, visualize real-time results in **PowerBI** for data-driven decision-making.
- **Program Performance Analytics:**
    - Engineered a high-performance analytics pipeline using Polars and multiprocessing, achieving faster processing of millions of records. Automated data extraction, KPI reporting, and monitoring with 99.9% pipeline uptime for enterprise program tracking.
    - Built an advanced **k-Nearest Neighbors pipeline** in Azure ML with automated KPI calculations and data warehouse integration, enabling performance benchmarking and uplift analysis across 19 business metrics for program success strategies.

CRISIL Irevna Poland Sp z o.o. - Wrocław, Poland
Data Scientist – Research Analyst
04/2021 – 12/2022

- Developed and deployed a **Dash web application (Python, Docker, MySQL)** for portfolio managers to analyze risk exposure, optimize asset allocation, and perform advanced financial analytics.
- Maintained and optimized a **MySQL Server database**, leading monthly data updates while ensuring integrity and consistency across financial datasets.
- Automated and streamlined ETL workflows using **Airflow, Luigi, Pandas, Polars, and NumPy**, improving reliability, scalability, and efficiency of data pipelines.

EDUCATION

University of Warsaw - Warsaw, Poland
Master of Arts in Data Science and Business Analytics
10/2019 – 07/2021

ADA University - Baku, Azerbaijan
Bachelor Science of Economics
09/2014 – 07/2019

SKILLS

Programming Languages & Tools	Python, R Programming, SQL, GIT, Docker, Bash
Machine Learning & AI	Statistics, Machine Learning, Deep Learning, Time Series Forecasting, Generative AI, Large Language Models (LLMs)
Data Engineering & Pipelines	ETL Development, Data Wrangling, Feature Engineering, Workflow Automation, Airflow, Luigi, API Integration
Big Data & Cloud Services	Azure ML, Azure Databricks, Fabric, PySpark
Project & Collaboration	Agile Methodologies, JIRA, Confluence, Asana, Team Collaboration, Problem Solving, Mentoring
Languages	English (Fluent), Azerbaijani (Native), Turkish (Fluent), Polish (Basic)

CERTIFICATES

- Microsoft Certified: **Azure Data Scientist Associate (DP-100)**
- Deeplearning.AI: **Machine Learning Specialization**
- Microsoft Certified: **Azure AI Fundamentals (AI-900)**
- Microsoft Certified: **Azure Data Fundamentals (DP-900)**
- Microsoft Certified: **Azure Fundamentals (AZ-900)**

HOBBIES

- **Board & Video Games**
- **Reading & Research**