IGOR NIKOLAIENKO

Data Architect & Data Scientist

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📍 Cologne/Germany

Focused on data science and engineering, my recent work has revolved around designing advanced data solutions aimed at preventing fraud and detecting anomalies in logistics operations. This involves leveraging cutting-edge technology, both backend and frontend, to build end-to-end solutions that make a meaningful business impact over the long-term.

My knowledge in data architecture and cloud-based data solutions is a valuable asset for implementing efficient and effective data management strategies in complex environments.

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WORK EXPERIENCES

Data Engineer / Data Scientist

Quality & Liability Management | Deutsche Post | 2020 - Present | Cologne

- Building fraud detection algorithms and prototypes
- Setting up data infrastructure and pipelines
- Development and design of dashboards
- Identifying trends, generating insights and validating hypotheses

Automation Developer

GBS Digitilization Programm | Deutsche Post | 2018 - 2020 | Cologne

- Estimating, designing, and developing robotics process automations (bots)
- DevOps for machine learning implementations
- Presenting applied digitization solutions at IT events

CERTIFICATES

Microsoft Certified Azure Data Engineer Associate (2023)

Designing Microsoft Azure Infrastructure Solutions (AZ-305)

Google Cloud Professional Data Engineer (2022)

Professional Scrum Master (2019)

BI Consultant / Data Analyst

- Designing data warehouse architecture and ETL processes
- Automating, standardizing, and optimizing management reporting
- Analyzing financial data anomalies

Data Analyst / IT-Project Manager

DHL Freight | 2011 - 2013 | Bonn

- Implementation of accounting and logistics data migration
- Operational and management reporting of logistics products

PROJECTS

Shipment theft ML prediction
2022-2023

The implemented machine learning solution provides early predictions of theft cases within parcel centers and during container transportations. Transportation and liability data are sourced from various data warehouse silos and systems. ML classification of fraud/non-fraud classes is based on several sub-task pipelines and features, such as clustering of customers, goods, value groups, NLP analyses of stolen goods descriptions, and other transportation metrics. The final prediction is carried out via an API call to DataRobot AutoML, where the trained model is located. I developed the end-to-end solution, which includes Python data engineering and AutoML modeling, with the assistance of business counterparts as for feature concepts and results validation. The daily predictions serve as the source for generation of security tickets, which are then used for further theft investigations by internal detectives.

Cash-on-delivery anomaly detection
2022

The objective of the project was to develop a system that could identify fraudulent activities associated with cash-on-delivery shipments, thereby mitigating direct financial loss. My solution involved implementing an anomaly detection system that utilized rule-based detection logic embedded into Python code above SQL data warehouse pipelines. The system successfully identified regional sites that indicated fraudulent activities, enabling security detectives to take prompt action. Within the first three months of providing these data to security detectives, we witnessed the successful investigation of seven cases, which included both individual criminals and organized criminal groups.

Liability scorecard of a company division
2021-2022

The aim of this project was to develop Tableau dashboards that could effectively visualize the company's liabilities pertaining to damage and missing shipments, with the goal of detecting

SKILLS

Azure Cloud/Google Cloud/Terraform

Python/Spark/SQL/

Tableau/SAP BW/PowerBI

Apache Airflow/Linux/Bash

Machine Learning

Anomaly Detection

AutoML DataRobot

Regression/Classification

NLP/Clustering/Deep Learning

CI/CD GitHub

JavaScript/HTML/CSS

OpenAI/ChatGPT API

EDUCATION

Data Science DHL Programm
Maastricht Open Universiteit
2021 - 2021

Bachelor of Business Administration
Berlin School of Economics HWR
2008 - 2011

negative trends in liabilities by site, logistics process segment, and product. During the course of the project, I created a suite of dashboards that were fed by advanced SQL pipelines. One of the major accomplishments of this initiative was the creation of a common source of truth that was accessible to management and hundreds of internal users across the organization. This ensured that everyone had access to the same data and insights, thereby improving decision-making capabilities and enabling more effective measures to be taken to combat losses.

Master of Electrical Engineering
Kyiv Polytechnic Institute KPI
2002 - 2008

LANGUAGES

German, English (Professional)

Ukranian, Russian (Native)

PERSONAL DATA

born in Ukraine, 1985

2 children

German citizenship