MARTIN M.
Consultant

Data Engineer

PROFESSIONAL BACKGROUND

Experienced IT Consultant with a strong track record of well-known companies such Siemens, PwC, BASF. My career started early on with a 3-month intership focusing at Reinforcement Learning with a foucs on IT Security at IBM in San Francisco, where I am still one of the youngest interns in the R&D Field at IBM that ever existed. Throughout my 4+ years of professional experience I had the chance to work on various sides of IT such as mobile dev., full-stack dev., DevOps and Data Engineering.

Education

- High school diploma (Abitur) - Specialisation: Math & Computer Science (Ø 1.2 | Top 0.5%)
- Autodidactic Learning (25+ completed courses on Udemy, 3+ Coursera etc.)

Languages

- **German**: Primary fluency
- **English**: Full professional proficiency
- **Spanish**: Elementary proficiency
- **French**: Elementary proficiency

AREAS OF EXPERTISE

- **Data Engineering** (Kafka + Confluent Cloud, Spark, Flink, ETL / ELT, Snowflake, Airflow, AWS Glue)
- **Cloud Technologies** (AWS, Azure, GCP)
- **Containerization & Orchestration (**Docker & K8s)
- Fullstack-Development (React, Vue.js, Angular, Node.js, Django/Flask, Spring Boot)
- **Machine Learning & Deep Learning** (Sci-kit Learn PyTorch, TensorFlow etc.)

Certification

- **HackerRank**: Gold Badge For C++ (Top 0.3% of 21 mil. users)
- **TryHackMe** – IT Security & Penetration Testing (Top 0.1% of 2.6 mil. users)

Industry Competence

- IT Security
- Aviation in the Defense Sector
- Banking & Financial Services

RELEVANT PROJECT EXPERIENCE I SELECTION

- **Siemens Cyber Security – Data Pipeline Development**
  - Designed and implemented ETL/ELT pipelines using Apache Airflow to orchestrate workflows, including triggering AWS Glue jobs with Apache Spark execution engine.
  - Integrated data from various sources into AWS S3, Snowflake, and Neo4j (for knowledge graph creation).
  - Utilized Terraform for Infrastructure as Code (IaC) to automate deployment of cloud resources.
- **PricewaterhouseCoopers Deutschland GmbH – Fraud Detection Model Development**
  - Contributed to the implementation of an advanced anomaly detection model for identifying fraudulent transactions, including money laundering and crime financing, using a Bayesian approach.
- **IBM, San Francisco – Reinforcement Learning Model Development**
  - Completed a 3-month internship in IBM's R&D division, collaborating with interns and senior associates.
  - Developed a deep learning reinforcement learning model using PyTorch, Tensorflow, and OpenAI Gym.
  - Created and optimized reward functions critical to model performance, integrating the project into a product used for internal security assessments and audits across IBM's global IT systems.