Fady Mahrous

Data Engineer

✉ fadyzth@hotmail.com   📞 +49 15259027585   📍 Blücherstr. 12, 50733 Köln, Nippes, Germany.

in linkedin.com/in/fady-mahrous-71573013b   ⬤ github.com/fadymahrous

Profile

Python Data Engineer with nearly 10+ years of experience building backend solutions and data processing systems. Strong expertise in automating workflows, developing data pipelines, and delivering production-ready solutions. Experienced in cross-functional collaboration and translating technical solutions for business stakeholders.

WORK EXPERIENCE

Software Developer (Python/Django), *Asiacell Communications PJSC*   03/2022 – 12/2024
Sulaymaniyah, Iraq

- Built robust data processing and cleaning pipelines, designed scalable storage solutions, and automated anomaly detection across the data pipeline.
- Implemented CI/CD workflows with version control to ensure stable and consistent production releases.
- Collaborated with technical stakeholders to gather requirements, identify pain points, define end-to-end architecture, and coordinate task assignments across cross-functional teams.
- Led development of internal support platform using Python (Django/RESTful API), Shell scripting, and front-end technologies; improved operational efficiency across technical teams
- Designed and built data collection engines across diverse sources to unify data formats for efficient loading, following hexagonal architecture principles to ensure modularity, testability, and scalability.
- Developed cloud-based infrastructure with different could services (AWS) and Infrastructure-as-Code (CloudFormation) for scalable deployments

Application Support Engineer, *Ericsson*   09/2018 – 03/2022
Cairo, Egypt

- Diagnosed and resolved Python code issues in automated upgrade pipelines, enhancing system deployments through continuous integration
- Implemented automated testing and monitoring for production systems, utilizing DevOps practices to ensure reliability and performance
- Applied Linux systems and database expertise to troubleshoot complex issues using log analysis to identify and fix root causes

Application Support Engineer, *Huawei Technologies*   01/2018 – 09/2018
Cairo, Egypt

- Delivered frontline support for Huawei's Ring Back Tone (RBT) across North Africa, the Middle East, and South Africa.
- Specialized in troubleshooting at application, OS, and Oracle levels, ensuring SLA compliance and effective communication.
- Conducted workshops, implemented new RBT testbeds, and improved KPIs.

Key Achievements

End-to-End Data Platform Development
Built from the ground up using Python libraries and SQL/NoSQL data stores to fully replace an Ericsson product, handling the daily collection, cleanup, and loading of over 30 million call data records, resulting in a 70% performance improvement.

Cloud-Native Data Pipeline and Automation for Real-Time Crypto Trading
Designed and deployed end-to-end, cloud-native data pipelines for real-time crypto trading, including ingestion, transformation, and storage of OHLC data.Automated infrastructure provisioning and CI/CD workflows using Infrastructure-as-Code, enabling seamless, scalable deployment and boosting data workflow reliability.

Mass Configuration Editor for Production Systems
Developed a data manipulation tool using Pandas, LXML, and Bash scripting to modify thousands of production configuration records, significantly reducing human errors and enabling large-scale deployments 90% faster with nearly 100% accuracy.

SKILLS

- Python, SQL, Bash/Shell Scripting
- Pandas, ETL pipelines, data analysis
- AWS (Boto3, Bedrock, Redshift, S3, IAM, Lambda)
- Wireshark/Network Protocols
- lxml/Beautiful Soup

- Django, FastAPI, SQLAlchemy
- Automated testing, debugging, performance optimization
- Docker, Kubernetes
- Version Control (Git)
- PyTorch/scikit-learn

Languages

English
IELTS Score C1

Deutsch
A2

EDUCATION

Bachelor in Electrical and Electronics Engineering, *El Shorouk Academy*   01/2009 – 01/2013