Wael Mansour

Data Scientist / AI Engineer

Saxony, Germany   ✉ wamansou@asu.edu   ☎ 01523 6373574

🔗 cv.waelmansour.com   in wael94

Summary

Data Scientist / AI Engineer specializing in privacy-first, on-prem ML systems (air-gapped deployments, encryption, PII redaction) for regulated environments—especially healthcare.

Tech lead delivering production NLP + computer vision pipelines for high-volume clinical document and communication workflows (100k+ documents/day; supporting 1.5M+ patients in the UK).

Applied research experience in computer vision and generative AI for space/low-gravity experimentation (plant root stress detection and simulation to reduce experimentation cost); open to Germany-based remote/hybrid roles.

Experience

Kynoby AI, Artificial Intelligence Engineer (Tech Lead)

United Kingdom
Mar 2023 – present
2 years 11 months

- Lead design and delivery of privacy-first AI systems for healthcare communication workflows, deployed on-prem in air-gapped environments with encryption and PII redaction.
- Built end-to-end medical letter and document processing pipelines combining NLP and computer vision for classification, extraction, triage, and routing at scale (100k+ documents/day).
- Delivered production systems supporting 1.5M+ patients in the UK, improving operational throughput and standardization of clinical communication handling.
- Owned multiple automation products; patient communication handling, hospital communication handling, and repeat-prescription automation.
- Drive technical direction across model selection, evaluation, and deployment constraints (latency, confidentiality, reliability), aligning stakeholders on measurable outcomes.
- Generalize solutions safely under NDA constraints while maintaining robust engineering practices for regulated environments.

Hochschule Mittweida, Research Assistant (Programming & Data Science - Space Applications)

Germany
Mar 2024 – present
1 year 11 months

- Develop computer-vision pipelines to detect stress signals in plant roots under space/low-gravity experiment conditions.
- Apply generative AI methods to simulate experimental conditions to reduce cost and accelerate land-based testing cycles.
- Collaborate with interdisciplinary research teams, translating experimental goals into data collection, modeling, and evaluation workflows.
- Build reproducible analysis workflows for research data, enabling iterative experimentation and model improvement.

KAPLAN Professional & Saudi Authority for Data and Artificial Intelligence, Assistant Teacher of Data Science and Artificial Intelligence

Saudi Arabia
Sept 2021 – Dec 2022
1 year 4 months

- Taught statistics and machine learning in a bootcamp environment to large cohorts (200–300 students).
- Delivered practical instruction in Python-based data science workflows, covering data preparation, modeling, and evaluation fundamentals.
- Mentored learners through applied ML exercises and projects; developed teaching materials and labs (private).

Artemis-Research, Headlands Corporation, Business Intelligence Analyst

USA
May 2021 – Nov 2022
1 year 7 months

- Produced recurring performance reporting (daily/weekly/monthly) across ~50 clinical sites to support operational and executive decision-making.
- Managed corporate patient database operations as a Salesforce administrator; implemented controls to improve data quality in medical research cycles.
- Built and maintained analytics workflows using SQL, BI dashboards (Power BI/Tableau), and Python-based analysis for ad-hoc executive requests.
- Partnered with stakeholders to define KPIs and standardize reporting outputs, reducing manual reporting friction and improving consistency.

Education

MSc **W. P. Carey School of Business, Arizona State University**, Business Analytics

Tempe, AZ, USA
Aug 2020 – Dec 2021

- GPA: 4.00
- Full scholarship
- Abdullah Al Ghurair Foundation for Education Scholarship Recipient

BSc **Hochschule Mittweida**, Applied Mathematics

Germany
Aug 2023 – present

- BSc in progress with emphasis on mathematical modeling and data-driven methods for engineering and scientific applications.
- Applying applied mathematics to real-world ML problems, including vision-based analysis and generative modeling for experimental simulation.
- Research-oriented projects bridging mathematics, computer vision, and applied AI for space applications.

BSc **College of International Transport and Logistics, AAST**, Trade Logistics and Supply Chain Management

Alexandria, Egypt
Sept 2014 – Feb 2018

- Honors: 3.8 GPA
- Full merit scholarship

Skills, Technologies & Pokemons

Machine Learning & Deep Learning: PyTorch, TensorFlow, Transformers; model development, evaluation, optimization; CUDA-enabled workflows

NLP & LLM Applications: Information extraction, NER, classification, document understanding; RAG, vector databases, LangChain; OpenAI and Vertex AI (Gemini)

Computer Vision: Vision pipelines for scanned documents and research imaging; multimodal workflows combining OCR/vision + NLP

Privacy & Security in AI: On-prem and air-gapped deployments, encryption-aware pipelines, PII detection/redaction, confidentiality-first system design

Data & Analytics: Pandas, NumPy; exploratory analysis, KPI design, reporting; stakeholder communication in healthcare and business contexts

MLOps / Applied Deployment: HuggingFace ecosystem, Gradio; ChromaDB and retrieval pipelines; production constraints (latency, throughput, reliability)

Cloud Platforms: Google Cloud Platform, Microsoft Azure, OpenAI platform

Business Intelligence: SQL, Power BI, Tableau; Salesforce (Admin); reporting and analytics workflows

Dev Tooling: VS Code, Jupyter notebooks; reproducible experiments and packaging basics; Docker (basic)

Natural Languages: English (fluent), Arabic (native), German (A1)

For the most updated CV, Please visit the website: https://cv.waelmansour.com