

Anis FAKHFAKH – Data Scientist (M.A.Sc)

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PROFESSIONNEL SUMMARY

Data Scientist with a M.A.Sc in Information Technology and experience implementing data-driven solutions in multiple domains: computer vision, time-series forecasting and NLP. Expertise in translating data into actionable insights for business decision-making and communicating findings to cross-functional audiences. Eager to apply machine learning and analytics to solve complex real-world business and R&D challenges and make a measurable impact.

PROFESSIONAL EXPERIENCE

IT Engineer (Contract)

March 2026 – June 2026

Multievaluation - Private real estate appraisal firm

Montréal, Québec, Canada

- Developed Python-based decision-support tools for comparable property analysis supporting property valuation for a broker.
- Automated Python pipelines to accelerate property evaluations, reducing hours of manual reports pre-filling from source documents.

Research Assistant

May 2023 - December 2025

LIO/CRCHUM

Montréal, Québec, Canada

- Implemented a novel PyTorch deep learning framework estimating knee flexion angles from monocular RGB walking videos, achieving clinically reliable performance (MAE: 2.4°) and outperforming state-of-the-art pose estimation baselines.
- Validated the statistical significance of two architectural improvements via ablation studies: MAE reduction via feature map regularization (-8.27%) and KneeKG inpainting (-9.30%), confirmed with SPM1D analysis over 85%+ of the gait cycle.
- Developed a clinical KneeKG data workflow : preprocessing, annotation, model training, evaluation across a 30-participant dataset.
- Communicated results on regular basis to biomechanical researchers from CRCHUM and industry partners EMOVI and MOVECK.

Data Scientist

January 2022 - December 2022

Cognira

Tunis, Tunisia

- Engineered demand forecasting features (price elasticity, promotions, seasonality and calendar effects), improving unit sales forecasting by 2-5% (Weighted Absolute Percentage Error reduction) across 65% of retail product categories.
- Built the concurrent promotion campaigns lift quantification and advised clients on the recommended strategies.
- Designed and implemented modular, scalable Azure data pipelines using Databricks, in collaboration with the data engineering team, processing large-scale retail time-series data across thousands of product SKUs and categories.

R&D Deep Learning intern

April 2021 - September 2021

Lab-STICC/IMT Atlantique

Plouzané, France

- Improved the spatiotemporal reconstruction performance of the 4DVarNet model by 3.2% through adversarial learning techniques and reaching a total 9.7% improvement through additional stochastic learning components.
- Refactored the 4DVarNet framework from PyTorch to PyTorch Lightning, improving modularity and reproducibility.

Data science / NLP intern

June 2020 - August 2020

axefinance

Tunis, Tunisia

- Built and deployed a Guided LDA topic modelling pipeline, trained on a corpus of 5k scrapped financial news articles, using Gensim and scikit-learn, achieving 0.7 topic coherence across 3 predefined financial topics and 20 seed words per topic.

EDUCATION

Master of Applied Sciences in Information Technology (Thesis-Based)

2023 – 2025

École de technologie supérieure | GPA: 4.12/4.30

Montréal, Québec, Canada

Bachelor of Engineering in Applied Mathematics and Data Science

2018– 2021

École Nationale d'ingénieurs de Tunis

Tunis, Tunisie

SKILLS

Data Science: Machine Learning, Computer Vision, Time Series, NLP, Feature Engineering, EDA, Statistical Testing, Data Visualization

Engineering: Python, SQL, R, C/C++, Docker, Git, Databricks/Spark, Azure, LLMs and Agentic AI, ETL pipelines, Power BI

Practices: MLOps, Agile (Jira, Confluence), Technical documentation, Unit tests

Languages : English (Fluent), French (Fluent)

PROJECTS

Semi-Supervised Medical Image Segmentation with Interpolation Consistency Regularization

Implemented a semi-supervised MA-Net cardiac MRI segmentation, using interpolation consistency, achieving 74.34% DSC.

Bixi AI Trip Planner

Developed an AI trip planner combining BIXI bike availability, public transit routing, and AI reasoning agents in real time.

Pytorch personalized federated Learning framework conception and implementation (Upwork)

Built a custom federated learning approach from scratch achieving accurate predictions with low communication overhead.