

YOUSSEF BOUTALEB

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OBJECTIVE

I am a Data Engineer with 1+ years of experience in building and maintaining scalable data pipelines. Skilled in MuleSoft, Talend, and Datadog, I am seeking a full-time Data Engineering role to apply my expertise and continue growing professionally.

EDUCATION

Computer Science Engineer's Degree (EUR-ACE® Accredited) 2021 – 2024
National Engineering School of Sfax

Bachelor of Engineering (Mathematics and Physics) 2019 – 2021
Higher Institute of Applied Sciences and Technology of Mahdia

EXPERIENCE

JACQUEMUS — Data Integration & Operations Engineer Aug 2024 – Present

- Built secure ETL pipelines with **Talend**, managing **Azure SQL**, **Blob Storage**, and SQL scripts.
- Deployed **Azure infrastructure** (VMs, App Gateways, DNS) with security controls (**IAM**, **SSL**, **IP restrictions**).
- Partnered with stakeholders to align requirements and transformation logic with business goals.
- Set up **Datadog monitoring**, automated shutdown schedules, and daily health checks to optimize costs and availability.
- Documented architecture, runbooks, and deployment processes for scalability.

OLIVESOFT — Data Integration Engineer Feb 2024 – May 2024

- Automated post-purchase surveys by integrating **Salesforce Service Cloud** with **Diduenjoy** using **MuleSoft (API-led, retry management)**.

OEM ENGINEERING S.A.R.L — Data Analysis & Signal Processing Engineer Jun 2022 – May 2023

- Developed an **ML model** predicting metal type from infrared data using **Savitzky-Golay** filtering.
- Optimized algorithm in Python (100x faster) and integrated with infrared cameras in **C#**.

PROJECTS

Custom YOLOv8 Model for Number Detection on Meters 🔄 2023
Developed and deployed a deep learning model for automatic meter number detection using **YOLOv8**, served through **FastAPI** and an interactive **Gradio** interface.

Image Colorization with Deep Learning 🔄 2023
Designed and implemented a neural network to automatically colorize grayscale images, focusing on feature extraction and realistic color mapping. This academic project highlights the use of **computer vision** and **deep learning** for image-to-image translation.

SKILLS

- **Data Integration & APIs:** Talend, MuleSoft, Apache Karaf/Camel
- **Cloud & Infrastructure:** Azure (Automation, Application Gateway, SSL/TLS, VM, Blob Storage)
- **Databases & Messaging:** SQL Server, PostgreSQL, ActiveMQ, SFTP, SMB
- **Monitoring & CI/CD:** Datadog, GitHub Actions, Postman
- **Data Orchestration & Processing:** Apache Airflow, Apache Spark
- **Programming Languages:** Python, Java, SQL, PowerShell
- **Collaboration & Agile:** Jira, Confluence, Agile/Scrum
- **Domains:** E-commerce, Retail, Order Management

PUBLICATIONS

Secure and transparent energy management using blockchain and machine learning anomaly detection: A case study of the Ausgrid dataset Computers & Industrial Engineering  2025

Authors: N. Moumni, Y. Boutaleb, F. Chaabane, and F. Drira

FPDN: A Framework for Pothole Detection and Notification Computers & Industrial Engineering (In progress) 2025

Authors: S. Khemakhem, Y. Boutaleb, W. Ouarda

TEACHING

- **Machine Learning** — Institute of Higher Commercial Studies of Sfax, 2024 – 2025
Master's in Data Science (Year 2)
Topics: Supervised & Unsupervised Learning, Gradient Descent, Clustering (K-Means), Model Evaluation
- **Data Engineering** — Institute of Higher Commercial Studies of Sfax, 2024 – 2025
Master's in Data Science (Year 2)
Topics: Big Data Ecosystem, Data Warehousing, ETL Processes, Scalable Data Pipelines


CERTIFICATIONS

- MuleSoft Certified Developer Level 1
- MuleSoft Certified Developer Level 2 (In progress)
- Talend Data Integration Certified Developer
- Datadog Certified: Fundamentals
- Datadog Certified: APM & Distributed Tracing Fundamentals
- Datadog Certified: Log Management (In progress)

ONLINE COURSES

- **Machine Learning Specialization** deeplearning.ai (Coursera)
- **Python and Flask Framework Complete Course** (Udemy)
- **Scrum Fundamentals Certified (SFC)** (Scrumstudy)
- **Data Analyst Associate** (DataCamp)
- **PyCharm Productivity and Debugging Techniques** (Udemy)
- **Build a Modern Computer from First Principles: From Nand to Tetris** (Coursera)

WORKSHOPS

- **Introduction to Competitive Programming** 2023
Conducted a workshop introducing problem-solving strategies, algorithms, and coding techniques for competitive programming, in collaboration with the **IEEE Student Branch** at **ENIS**.
- **Assembly Programming Workshop**  2023
Hands-on workshop exploring low-level programming with Assembly language, organized with the **Securinets Club** at **ENIS**.
- **Introduction to Python** 2022
Delivered a beginner-friendly workshop covering Python fundamentals and practical applications, organized with the **IEEE Student Branch** at **ENIS**.

LANGUAGES & COMMUNITY

- **Languages:** **English** (Full professional proficiency), **French** (Full professional proficiency), **Arabic** (Native).
- **Volunteer, Tunisian Red Crescent** Volunteered with the Houmt Souk Djerba branch during the COVID-19 crisis, helping organize aid distribution, assisting with crowd coordination, supporting elderly individuals, and participating in collecting and distributing essential supplies.