abderaouf.boudia@gmail.com
Cachan, Île-de-France
24 years old
Driving licence (B)
07 48 47 02 27

Languages

Arabic
Mother tongue

French
DALF C1

English

SKILLS & SOFTWARE

Programming languages: Python, R, SQL, Matlab, C/C++, SAS

Python
Pytorch, OpenCV, Scikit-image, Scikit-Learn, Keras, Pandas, Pyspark, SHAP, SweetViz, Seaborn, Matplotlib, Transformers, NLTK, KerasNLP, MLflow

Git, Docker, DVC, Microsoft Azure

Image Segmentation and Instance Segmentation

Deep Learning Architectures for Computer Vision

Advanced PyTorch programming

CUDA and GPU Acceleration Techniques

Cross-functional team collaboration

Certificates

Web Scraping and API Fundamentals in Python - 365 data science

Neural Network and Deep Learning - Coursera

Learn SQL Basics for Data Science Specialization - University of California, Davis on Coursera

Social networks

@boudia-abderaouf
@Abderaouf Boudia

Abderaouf Boudia

AI Engineer - Computer Vision & Deep Learning

AI Engineer with one year of experience experimenting with GPU-accelerated deep-learning models, analysing real-world datasets, preparing and annotating large image collections, and supporting cross-functional AI projects. I train computer-vision models to detect energy equipment and estimate their capacity, and I am now seeking a PhD opportunity to deepen my research skills and contribute to the field.

Work experience

Ai Engineer

Since March 2024 Cedrus Solutions Paris

- Develop and train computer vision models (Fast R-CNN) with GPU optimization to detect energy equipment from satellite imagery.
- Manage annotation campaigns and ensure data quality control.
- Build data processing pipelines for real estate projects and train/evaluate ML models (Random Forest, XGBoost, MLP).
- Collaborate with domain experts to translate business needs into deployable AI solutions.

AI engineer Intern : Unsupervised domain adaptation for image segmentation using SAM

Since April 2024 SLB Clamart, France

- Utilized state-of-the-art source-free domain adaptation techniques to enhance the segmentation accuracy of models.
- Adapted Interactive Image Segmentation techniques using Large Foundation Models (SAM) with Vision Transformers and fine-tuning via LoRA to handle out-of-domain SLB data, medical datasets, and other domain-specific datasets.
- Participated in resolving problematic within the computer vision team.

Research Intern : Data optimization and Dimension reduction for genomic data partitioning.

From February 2024 to April 2024 CEDRIC LAB Paris, France

- Applied a variant of PCA, the Median Sparse PCA (MSPCA) for dimensionality reduction to analyze high-dimensional genomic data.
- Used K-means algorithm to assess effectiveness of dimension reduction via MSPCA for clustering, evaluating with Cumulative Proportion of Explained Variance and Rand index

Machine Learning Engineer Intern - Application of machine learning techniques for the analysis of ga

From February 2023 to July 2023 CDTA - Ecole Nationale Polytechnique Algiers, Algeria

- Conducted pre-processing tasks, including signal processing from a single inertial measurement unit and segmentation algorithms for extracting key features.
- Employed various classification algorithms, showcasing expertise in end-to-end data science processes.

Deep Learning Engineer Intern - Fall detection using 1D CNN

From July 2022 to October 2022
Centre de Développement des Technologies Avancées (CDTA) Algiers, Algeria

- Recognition of human activity signals and fall detection.
- Development of a 1D Convolutional Neural Network (CNN) model on TensorFlow Lite.
- Implementation on Arduino Nano 33 BLE integrating inertial sensors.

Education

Master 2 - Information processing and data exploitation

From September 2023 to October 2024
Paris-Saclay University - Télécom SudParis Paris, France
Courses: Statistical analysis and data processing - Qualitative data analysis - Bayesian networks - Deep learning (RNN, LSTM, Transformers) - NLP - Ensemble learning - Big Data - SQL database - Reinforcement learning - Docker.

State Engineering + Master's Degrees in Electronics Engineering

From October 2020 to July 2023 Ecole Nationale Polytechnique d'Alger Algiers, Algeria
Courses: Machine learning, Image processing, Signal processing, Information processing, Programming Languages, Estimation theory

Preparatory Classes in Science and Technologie for Engineering Schools

From September 2018 to September 2020
Ecole Nationale Polytechnique Algiers, Algeria
National Entrance Exam for Engineering Schools: Ranked 81th out of 1961 laureates