YASSIR LAIRGI

Data Scientist | Machine Learning & Computer Vision Engineer

Teamwork, Flexibility, Continuous Learning

CONTACT

- 24 ans
- 31 rue Louis Antoine de Bougainville. Toulouse , France
- Portoflio (Click HERE)
- (+33) 7 66 32 27 39
- Github/lairgiyassir
- LinkedIn/yassirlairgi
- yassirlairgi@gmail.com
- Driving licence B

SKILLS

Machine Learning : Python (pandas, numpy, matplotlib, OpenCV, scipy, Scikit-Learn, keras, pytorch) .

Computer Vision : Wolfram, OpenCV, scikit-learn , scikit-image, Pytorch.

NLP : Topic Modeling, BERT, Text Summarization, Keywords Extraction, Word Embeddings, POS Tagging .

MLOps : Packaging, Deployment, Docker, Containers, Cloud, Microservices, Streamlit, FastAPI, VueJS.

Linux : Bash Scripting, Commands.

Data Base : MongoDB, MySQL, SQL

Office Tools : Latex, Ms Office.

Graphic Design : Photoshop, Premiere Illustrator, Xd.

Hardware : ESP32, Arduino.

Soft : Time & Team Management.

LANGUAGES

Arabic	Mother Tongue.
French	Fluent.
English	Advanced.
Spanish	Beginner

HOBBIES

- Amateur Astronomy
- Programming
- Teaching
- Graphic Design

CERTIFICATION

Introduction to Image Processing.
Exoplanet Observing.
Analyzing Data with VStar.
Observing and counting sunspots.

EDUCATION

2021 - 2022 **ECOLE DES MINES DE SAINT ETIENNE FRANCE - TRIPLE DEGREE**
MASTER OF SCIENCE - MATHEMATICAL IMAGING AND SPATIAL PATTERN ANALYSIS

2020 - 2021
2021 - 2022 **ECOLE DES MINES DE SAINT ETIENNE FRANCE - DOUBLE DEGREE**
INGÉNIEUR CIVIL DES MINES | MAJOR-1 DATA SCIENCE , MAJOR-2 COMPUTER SCIENCE , TOOLBOX COMPUTER VISION & ARTIFICIAL INTELLIGENCE

2018 - 2020 **ECOLE HASSANIA DES TRAVAUX PUBLICS MOROCCO**

2016 - 2018 **PREPARATORY CLASSES, MATHEMATICS AND PHYSICS**

PROFESSIONAL EXPERIENCE

COMPUTER VISION ENGINEER
April - September 2022

CENTRE NATIONAL D'ETUDES SPATIALES - TOULOUSE FRANCE
Proposing an innovative approach to reduce satellite failures, in hyperspectral 3D cubes, through automatic detection of organic materials which have the disadvantage of outgassing under vacuum and contaminating the satellite detectors.
This approach was published as a scientific paper.
Keywords : Hyperspectral Image Processing, openCV, ICA, PCA, Kmeans, Automatic Segmentation, 2DCNN, Fast3DCNNs , keras , Parallel computing, GUI.

RESEARCH ENGINEER
January - March 2022

UNIVERSITY OF GADJAH MADA - INDONESIA
Evaluation of artificial texture images generated by the Pix2pix GAN architecture in order to select the most reliable artificial samples for the data augmentation process.
Keywords : Data Augmentation, GANs, Deep Learning, Pix2pix.

R&D IN NATURAL LANGUAGE PROCESSING
June- September 2021

AUVALIE INNOVATION - LYON FRANCE
Implementation and deployment of a graph-based approach to estimate the semantic relatedness in a technical documents.
Keywords : NLP, Topic Modeling, LDA , KeyBERT, Graph theory, Mind Mapping, Relatedness measure, Strealmlit and FastAPI for MLOPS.

FULL-STACK DATA SCIENTIST
September- January 2021-2022

Prototyping a cloud-native Web Application for NLP Topic Analysis based on dockerized Flow, Background tasks and High-performance web server.
Keywords : Docker Containers, Microservices, MLOPS, Parallel processing.

IMAGE PROCESSING ENGINEER
April - May 2021

ECOLE DES MINES DE SAINT ETIENNE
Detecting, from an input video, a moving granular material and measuring its height through a spatio-temporal figure.
Keywords : Video Processing, Video Frames Extraction, Automatic Segmentation, Region of Interest Extraction, Mathematical Morphology and noise reduction.
- Pixel Counting.

IMAGE PROCESSING ENGINEER
January- May 2021

HORTI SUD - AGADIR MOROCCO
Evaluating a farm water distribution using satellite images and automatically calculating the uniformity coefficient.
Keywords : Automatic Image segmentation, KMeans Clustering, Machine Learning, Mathematical Morphology and Surface Calculating.

SCIENTIFIC RESEARCH
CO-AUTHOR

SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS (SPIE)
Co-author of the article *" Performance review of a UV/vis/IR fluorescence hyperspectral camera to detect contamination on spacecraft during integration "* SPIE (2022 Vol. 12224, pp. 336-346).

CO-AUTHOR

INTERNATIONAL CONFERENCE ON DIGITAL TECHNOLOGIES AND APPS
Co-author of the article *" Forecasting Heating and Cooling Energy Consumption by Seasonal ARIMA Models "* Springer, Cham (pp. 65-74).

CO-AUTHOR

MEDITERRANEAN JOURNAL OF CHEMISTRY
Second co-author of the article *" Impact of Waste Recovery on the COVID-19 Propagation "* Mediterranean Journal of Chemistry 2020, 10(8), 744-751 .