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Websites

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Honors

Winner of IDEX Excellence Scholarship 2021

Skills

Python Pytorch, Tensorflow, OpenCV, scikit-learn, Flask, SQLAlchemy.

C and C++ OpenCV, PCL, Eigen.

Databases MongoDB, BigQuery, SQL.

Matlab & Simulink

Linux

Git & Github

Google Cloud Platform

Freelance

Machine Learning and Computer Vision Freelancer - Upwrok

Personal Projects

Facial landmark detection with Deep Learning using Pytorch.

Image captioning with Deep Learning using Pytorch.

Hackathons

UmojaHack Africa Financial Resilience Challenge.
Ranking: 24/463

UmojaHack Algeria Time to arrival estimation using Machine Learning.
Ranking: 3/81

Languages

English TOEFL IBT 102/120

French TCF level C2

Arabic Native

Extracurricular Activities

Member of IEEE student branch Algeria. Feb 2020 - Dec 2020

Business English - Berlitz Jan 2020 - Mar 2020

Regional Mathematics Olympiad. Ranking 3/100.

Member of vision and innovation club Finance and logistics team (2019-2020)

M. Yacine BOUAOUNI

Machine Learning Research

Publications

Driving-Pattern Identification and Event Detection Based on an Unsupervised Learning Framework: Case of a Motorcycle-Riding Simulator. *M.Y.Bouaouni, R.Ait Ali Yahia, A.Boubezoul.* ***- IEEE Access. DOI: 10.1109/ACCESS.2021.3130400***

Education

MSc Mathematics, Vision, Machine Learning (MVA)

Since 2021 École normale supérieure Paris-Saclay Paris

Courses: Deep Learning, algorithms for speech processing, Learning for time series, audio signal processing, image Denoising, Computer vision, Reinforcement learning, Convex Optimization.

Engineering Degree in Electronics and Master in Telecommunication.

From 2016 to 2021 Ecole Nationale Polytechnique Algiers

Courses: Signal and image processing, information theory, estimation theory, optimization and machine learning.
GPA: 3.9/4.0 Ranking: 1/23 (Engineer cycle) and 1/307 (Preparatory classes).

Computer Vision Nanodegree.

2020 Udacity - Nvidia (Online)

Topics: Image processing, CNN, RNN, LSTM and transformers. Degree length: 3 months.

Sensor Fusion Nanodegree

2020 Udacity & Mercedes (Online)

Topics: 3D segmentation, data fusion (camera, radar, lidar). Degree length: 4 months.

National Access Competition to Engineering Schools (Grandes Ecoles).

From 2016 to 2018 Preparatory Classes - Ecole Nationale Polytechnique Algiers

Field: Science and technology. **Ranking**: 6/1338

Experience

Research Intern Hybrid Deep Learning Based Speech Source Separation

From February 2021 to July 2021 Ecole Nationale Polytechnique Algiers

- Engineering degree final project. Supervisor: Pr. Adel Belouchrani (IEEE Fellow)
- Development of an algorithm based on auto-encoders and deep unfolding techniques for source separation in the time-frequency domain.

Research Intern Riding Patterns Identification based on unsupervised learning framework

From June 2020 to February 2021 Laboratory SATIE Paris

- Develop an unsupervised framework to analyze the risk incurred by motorized two-wheeler drivers' maneuvers by recognizing trajectory patterns using sensory time series data.

Computer Vision Intern - Time to collision estimation using monocular cameras

From September 2021 to October 2021 Ecole Nationale Polytechnique Algiers

- Conduct a comparative study of image descriptors and improve feature matching performance using approximate nearest neighbor methods for TTC estimation.

Computer Vision Intern - Scene Understanding for Autonomous Vehicles.

From July 2021 to September 2021 Ecole Nationale Polytechnique Alger

- Develop a solution for obstacle tracking using Kalman filters and 3D segmentation in c++.

Data science Intern

From December 2019 to January 2020 YA Technologies (YASSIR) Algiers

- Application of unsupervised learning algorithms to the categorization of VTC drivers according to their contribution to the company's profit.

Computer Vision Intern - Segmentation and classification of satellite images.

From October 2019 to December 2019 Signal and communication laboratory (ENP) Algiers

- Build a deep learning model to segment cloud organization patterns from satellite images.