# ABDOUL DJALIL OUSSEINI HAMZA

Area of interest: Computer Vision, Image Processing, Signal Processing, Natural Language Processing, Machine Learning, Deep Learning, Linear Algebra, Statistics

## CONTACT



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#### **EDUCATION**

#### MSc || DATA SCIENCE

La Rochelle University || France, La Rochelle 2019-2020

#### MSc | INFORMATION TECHNOLOGY

Vietnam National University || Hanoi, Vietnam 2017-2019

#### BSc | TELECOMMUNICATION

IAT – Niger || Niamey, Niger 2012 -2015

### **SKILLS**

#### > IMAGE PROCESSING

Noise reduction (Gaussian filters), Contour detection (Canny filter), Image segmentation (Otsu method, Canny)

#### > COMPUTER VISION

Detection and tracking of objects, detection of points of interest (Harris, Sift)

#### MACHINE/DEEP - LEARNING

Image Classification (CNN, ONN), Image Detection, Image Segmentation (CNN, ONN)

#### PROGRAMMING LANGUAGES

Python, C/C++, Java, HTML, CSS, MySQL, Postgresql, JavaScrip, Django

#### **EXPERIENCES**

#### Research Engineer || Full-time

INRIA Sophia Antipolis || Nice, France || June 2022 - Present

<u>Project:</u> CV/ML based fall detection model for elder persons, part of the SECUMAD, in collaboration with STARS, CoBTEK and NODEUS. Exploiting the advances in the Human pose estimation, our model takes as an input 2D/3D skeletons. This approach benefits from HKE with is less sensitive color rand light conditions (of the video/image).

**Keywords**: Human Keypoint estimation (HKE), action recognition, action detection, spatiotemporal action recognition

Supervisor: François Brémond

Research Assistant || Full-time Qatar University || Doha, Qatar || Feb 2021 - Dec 2021

<u>Project:</u> Early Anomaly Recognition System for Qatar World Cup-2022 (EARS-Q2022) Computationally and data efficient convolutional neural networks (CNN) for action classification. With Operational Neural Networks (ONN) we achieved competitive results to big CNN architecture like EFDNET, but reducing significantly the number of parameters of the final models.

**Tools**: Python, Pytorch, Matlab

Supervisor: Prof. Serkan Kiranyaz - Qatar University

Msc thesis: Real Time Multimodal Baby Monitoring System

IFI Solution|| Hanoi, Vietnam || June 2019 - November 2019

Light CNN model embedded in a Raspberry pi for real-time baby posture classification.

Supervisor: Dr. NGUYEN Trong Phuc - IFI-Solution

M1 project: 3D laser data segmentation (point cloud)

Vietnam National University, Hanoi|| Feb 2018 - June 2018

Ground segmentation from 3D point cloud data for autonomous vehicle vision

Supervisor: Dr Ho Tuong Vinh, Vietnam National University

#### **PUBLICATIONS**

#### Ongoing:

- 1. Fire/smoke detection using ONN, Qatar University Qatar
- Unexpected crowd detection, Qatar University and Tampere University - Finland

## Abdoul-Djalil OUSSEINI H.

#### AWARDS

Programming hackathon, 2<sup>nd</sup> place MapCom Niger || 2014

## MENTORING

07/2021 - Present

ABDOULAZIZI Y.Abdoul-Kader College: Islamic University in Niger Dept.: Faculty of Sciences and Technologies

## LANGUAGES

French (fluent) English (professional) Arabic (reading) Hausa, Zarma (native)

## INTERESTS

- Reading
- Web savvy
- Watching Movies

## DRIVER'S LICENSE

License, B category | Niamey - 2012

#### REFERENCES



## Prof. Serkan Kiranyaz

Dept. of Electrical Engineering College of Engineering, Qatar University P.O. Box 2713, Doha, Qatar mkiranyaz@qu.edu.qa



#### Prof. Francois Bremond

Research Director DR1 at INRIA Sophia Antipolis, Chair: 3IA Côte d'Azur

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#### Dr. HO Tuong Vinh

Deputy Director and Lecturer at IFI-Vietnam National University, C3 (2nd floor), 144 Xuan Thuy, Cau Giay, Hanoi, Vietnam

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