

# 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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[Abdoul Djalil Ousseini Hamza](#)

## 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, JavaScript, Django

## EXPERIENCES

### Research Engineer || Full-time

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

**Project:** *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 and light conditions (of the video/image).

**Keywords:** Human Keypoint estimation (HKE), action recognition, action detection, spatio-temporal action recognition

**Supervisor:** François Brémont

### Research Assistant || Full-time

Qatar University || Doha, Qatar || Feb 2021 – Dec 2021

**Project:** *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
2. *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  
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