# Chloé Hiba ALQASIR

## PhD in Artificial Intelligence\* Computer Vision and Deep Learning

in  ${}^{\smile}$ 

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25/09/1992 (31 years)

Rouen, France

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# Research Experiences

Dec 2020 - Aug 2022

Hubert Curien laboratory

Temporary teaching and research associate (ATER)

Boosting generalization performance with shape priors in image classification.

Dec 2017 - Nov 2020

Hubert Curien laboratory in partnership with Bluecime PhD candidate

### "Deep Learning for Chairlift Scene Analysis: Boosting Generalization in Multi-domain Context"

- Develop ML solutions improved the performance of SIVAO system in identifying risky situations in chairlifts;
- · Optimize DL systems and associated algorithms for better generalization in muti-domain context;
- Design and conduct experiments to evaluate theories for better efficacy with limited or no labeled data;
- Provide reports and presentations to project partners.

Mar 2017 – Jul 2017

#### Hubert Curien laboratory Research Intern

"Texture synthesis: implementation of a CNN-based algorithm and performance assessment via a trained auto-encoder."

- Provide a pedagogical introduction dedicated to CNNs;
- · Implement a CNN-based algorithm for texture synthesis, and develop a method to discriminate between texture synthesis algorithms.

Apr 2016 – Sep 2016

#### École Nationale Supérieure des Mines Research Intern

"Mathematical model to estimate energy consumption of the buildings at the scale of district."

- Design a web crawler and analyse the retrieved data;
- Tweak (Regression, Kriging and MissForest) methods and applay them on the study area (Saint-Étienne).

# Teaching Experiences

Dec 2020 - Aug 2022 (ATER contract)

Télécom Saint-Étienne Écoles d'ingénieurs Temporary teaching and research associate

Create theoretical courses, and their practical implementation and exams. Teach, guide and lead tutoring sessions for engineering school students.

Modules:

Relational databases ana data storage MySQL UML and Java Software Engineering

Mini-project C++ and SFML

Event-driven programming Android studio Object Oriented Programming C++/Java

Feb 2018 - April 2020 (PT)

Modules:

Graphical user interface C++ on Qt Object Oriented Programing C++ on MS VS

Materials are available at halqasir.github.io/teaching

# Academic background

2017-2020 Doctor of Philosophy Computer Science - AI Université de Lyon ED SIS *In partnership with Bluecime* 

Master degree in Computer Science 2015-2017 Machine Learning and Data Mining

Jean Monnet University and

École Nationale Supérieure des Mines

2010-2015 Bachelor degree

Information Technology Engineering

Damascus University Faculty of IT Engineering

# Languages

English Advanced C1 (Cambridge English Certificate)

French Advanced C1 (Certification Le Robert)

Spanish Beggniner Aı

Fluent (native language) Arabic

<sup>\*</sup> Qualified to the functions of "maître de conférences" 2022, section 27 (Informatique).

### Technical Skills

Resume

Programming C, C++, Java, Python

Deep learning Keras, Caffe, Tensorflow

Data Analysis RStudio, MATLAB

Computer vision OpenCV, VLFeat,

MatConvNet

DBMS MYSQL, PL/SQL

Web programming PHP, JavaServlet

Web design JavaScript, Html5, CSS

Semantic Web SPARQL, protégé

Mobile development Android Studio

Software context Git, Visual Studio, Qt,

Linux, Slurm, Excel

### Soft Skills

- Passionate, rigorous and autonomous.
- Fit to work in an international context.
- · Listening, empathy and collaborative work.
- · Open-mindedness and adaptability.

### Hobbies and interests

- · Mediterranean cuisine
- Reading
- Chess
- · Ping pong

### **Publications**

Alqasir Hiba, Damien Muselet, and Christophe Ducottet. "Introducing Shape Priors in Siamese Networks for Image Classification." *Neurocomputing* Elsevier 2023.

Alqasir Hiba. "Deep Learning for Chairlift Scene Analysis: Boosting Generalization in Multi-Domain Context." Doctoral dissertation, Université de Lyon, 2020.

Alqasir Hiba, Damien Muselet, and Christophe Ducottet. "Region Proposal Oriented Approach for Domain Adaptive Object Detection." *International Conference on Advanced Concepts for Intelligent Vision Systems.* Springer, Cham, 2020.

Alqasir Hiba, Damien Muselet, and Christophe Ducottet. "Mask-guided Image Classification with Siamese Networks." *International Conference on Computer Vision Theory and Applications.* 2020

Alqasir Hiba, Damien Muselet, and Christophe Ducottet. "Double adaptation de domaine pour la détection d'objets." Conférence Nationale d'Intelligence Artificielle. 2020.

Daoud Alaa, Picard Gauthier, Alqasir Hiba et al. "Communication-wise Comparison of the Online Resource Allocation Methods in CAV Fleets." *The 14th International Conference on Ambient Systems, Networks and Technologies (ANT)* 2023.

Balbo Flavien ... Alqasir Hiba et al. "RoboTwin: Combining Digital Twin and Artificial Intelligence domains for controlling robots in Industry 4.0" Conference: 17th International KES Conference - Agents and Multiagent Systems: Technologies and Aplications (AMSTA) 2023.

Daoud Alaa, Alqasir Hiba, Mualla Yazan, et al. "Towards Explainable Recommendations of Resource Allocation Mechanisms in On-Demand Transport Fleets." 3rd International Workshop on EXplainable and TRAnsparent AI and Multi-Agent Systems (EXTRAAMAS). 2021.

### References

Christophe Ducottet Damien Muselet

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