# MohamedAli Souibgui

*PhD Student,*
*28 years old*

*Computer Vision Center, Edifici O, UAB*
*08193*
*Bellaterra, Barcelona, Spain*
*+34 691617408*
*msouibgui@cvc.uab.es*
*linkedin.com/in/mohamed-ali-souibgui*


## Education

Sep 2019–Now **PhD student in computer science**, *Autonomous university of Barcelona*, Computer Vision Center (CVC), Topic: *Recognition of handwritten ciphers*.

2018 **Certificate in Deep Learning Specialization**, *a 5-course specialization by deeplearning.ai*, on Coursera.

Sep 2015–Mar 2018 **Master's degree in computer science**, *Faculty of sciences*, Monastir, *Master's degree*.
Modeling of automatic reasoning systems

Sep 2012–Jun2015 **Bachelor's degree in computer sciences**, *Faculty of sciences*, Monastir, *Bachelor's degree*.

## Internships

Mai 2019–Jun 2019 **Research visit**, *Computer vision center (CVC)*, Barcelona.

Feb 2017–Sep 2017 **Master thesis internship**, *MARS Laboratory*, Monastir.

## Master thesis

title *Handwritten Arabic character recognition using features extracted by blind source separation*

## Research projects

2019– Now **Decrypt project: Recognition of handwritten ciphers using computer vision and deep learning tools**, *MIRACL laboratory*, Sfax.
Achievements:
- Some research paper are being publishing.

2018 **Developing a framework for document enhancement using generative adversarial networks (GANs)**, *MIRACL laboratory*, Sfax.
Achievements:
- Developing DE-GAN, a framework for document enhancement.
- Recovering clean versions from watermarked and degraded documents using DE-GAN.
- Acheving state-of-the-art results in degraded documents binarization.
- A paper describing the work was published in IEEE TPAMI journal.

2017 **Recognition of handwritten Arabic character using features extracted by blind source separation**, *MARS laboratory*, Monastir.
Achievements:
- Studying the different methods used for HACR feature extraction (Gradient, zoning, ...)
- Proposing a new method for HACR feature extraction based on Blind source separation methods (ICA, NMF and DEDS).
- Good results was obtained comparing to the widely used methods.

2015 **Resolution of a constraint satisfaction problem**, *FSM*, Monastir.
Achievements:
- Studying the constraint satisfaction problems (CSP);
- Proposing a new problem that could not be solved using the CSP algorithms.
- Solving this problem using an heuristic approach.

## Research interests

- Artificial intelligence
- Machine learning / Deep learning
- Generative Adversarial Networks
- Computer vision
- Natural language processing
- Document analysis

## Languages

English Excellent writing, good speaking
French Good writing, good speaking
Arabic Excellent writing, excellent speaking

## Computer skills

- Object-oriented programming: Python(Keras, Tensorflow, ...), Matlab, C++, C#, Java ...
- Logic programming: Prolog
- Constraint programming: IBM ILOG CPLEX

## Publications

Journals:

- Souibgui, M. A., & Kessentini, Y. (2020). De-gan: A conditional generative adversarial network for document enhancement. IEEE Transactions on Pattern Analysis and Machine Intelligence.

Conferences:

- Chen, J., Souibgui, M. A., Fornés, A., & Megyesi, B. (2020, May). A Web-based Interactive Transcription Tool for Encrypted Manuscripts. In Proceedings of the 3rd International Conference on Historical Cryptology HistoCrypt 2020 (No. 171, pp. 52-59).
- Souibgui, M. A., Fornés, A., Kessentini, Y., & Tudor, C. (2020). A Few-shot Learning Approach for Historical Ciphered Manuscript Recognition. In 2020 25th International Conference on Pattern Recognition (ICPR). IEEE.
- Souibgui, M. A., Kessentini, Y., & Fornés, A. A Conditional GAN Based Approach for Distorted Camera Captured Documents Recovery. In 2020 4th Mediterranean Conference on Pattern Recognition and Artificial Intelligence (MedPRAI). Springer.

## Awards

- **Best student paper award:** The prize was given by the ICPR 2020 organizing committee for the paper entitled: $A\ Few-shot\ Learning\ Approach\ for\ Historical\ Ciphered\ Manuscript\ Recognition$