MohamedAli Souibgui

Pre-Doc Researcher

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Education and Certificates

Oct 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*.

Work Experience

Oct 2019–Now **Pre-doctoral Researcher**, *Computer Vision Center (CVC)*, Barcelona, Spain.
Computer vision within the document analysis group

Oct 2018–Aug 2019 **Computer Vision Researcher**, *Digital Research Center of Sfax*, Sfax, Tunisia.
Computer vision within the deep vision group

Mai 2019–Jun 2019 **Research Intern**, *Computer vision center (CVC)*, Barcelona, Spain.
Computer vision within the document analysis group

Jan 2019–Apr 2019 **Intern**, *Satoripop*, Sousah, Tunisia.
Computer Vision and NLP within the Research and Development Team

Feb 2017–Sep 2017 **Intern**, *MARS Laboratory*, Monastir, Tunisia.
Internship related to the master thesis

Areas of Expertise

Deep Learning:
- Artificial Neural Networks (**ANN**)
- Convolutional Neural Networks (**CNN**)

- Generative Adversarial Networks (**GANs**)
- **Transformers**
- Recurrent Neural Networks (**RNN**)

Computer Vision:

- **Object Detection**
- **Classification**
- Optical Character Recognition (**OCR**) / **Text Spotting**
- **Image Processing and Enhancement**
- **Image Generation**
- etc.

Programming Languages/Libraries

- **Python (Pytorch , Keras, Tensorflow, OpenCV, scikit-learn, Numpy, Pandas, . . .)**
- **Matlab**, C, C++, C#, Java . . .
- Latex, Javascript, HTML, CSS (Bootstrap), . . .

Research interests

- **Artificial intelligence**
- **Computer vision**
- **Machine learning / Deep learning**
- **Document Analysis / Intelligence / Understanding**
- **Natural language processing**

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 (TPAMI).
- Jemni, S. K.*, **Souibgui, M. A.***, Kessentini, Y. &. Fornés, A (2021). *Enhance for Better Reading: A Multi-Task Adversarial Network for Handwritten Document Image Enhancement*. Pattern Recognition. 123.
- **Souibgui, M. A.**, Fornés, A., Kessentini, Y., & Megyesi, B. (2022). *Few Shots Are All You Need: A Progressive Few Shot Learning Approach for Low Resource Handwritten Text Recognition*. Pattern Recognition Letters.

* Equal contribution.

Conferences:

- **Souibgui, M. A.**[*], Biswas, S.[*], Mafla, A.[*], Biten, A. F.[*], Fornés, A., Kessentini, Y., Lladós, J, Gomez, L, & Karatzas, D. (2022). *Text-DIAE: Degradation Invariant Autoencoders for Text Recognition and Document Enhancement*. In 2023 AAAI Conference on Artificial Intelligence (AAAI)(Under Revision)
- **Souibgui, M. A.**[*], Biswas, S.[*], Jemni, S. K.[*], Kessentini, Y., Fornés, A., Lladós, J, & Pal, U. (2022). *DocEnTr: An End-to-End Document Image Enhancement Transformer*. In 2022 26th International Conference on Pattern Recognition (ICPR).
- **Souibgui, M. A.**[*], Biten, A. F.[*], Dey, S.[*], Fornés, A., Kessentini, Y., Gomez, L., Karatzas, D. & Lladós, J (2022). *One-shot Compositional Data Generation for Low Resource Handwritten Text Recognition*. In Winter Conference on Applications of Computer Vision (WACV) (pp. 935-943).
- 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.
- Chen, J., **Souibgui, M. A.**, Fornés, A. & Megyesi, B. (2021, August). *Unsupervised Alphabet Matching in Historical Encrypted Manuscript Images*. In the 4th International Conference on Historical Cryptology HistoCrypt (pp. 34-37).

Workshops:

- Torras, P., **Souibgui, M. A.**, Chen, J., & Fornés, A. (2021, September). *A Transcription Is All You Need: Learning to Align Through Attention*. In International Conference on Document Analysis and Recognition (GREC Workshop) (pp. 141-146). Springer, Cham.

Languages

English	Excellent writing, Excellent speaking
French	Good writing, good speaking
Arabic	Native language

Awards

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