Mohammed El Adoui (PhD)

POST DOCTORAL RESEARCHER| DATA SCIENTIST |SR. MACHINE & DEEP LEARNING EXPERT
DATE OF BIRHT: 11/10/1991

PURPOSE

Holder of a Ph.D. degree in engineering science and technology since March 2021, and previously a post-doctoral researcher at the UMONS University & university teaching and research assistant in AI, multimedia processing, and programming languages. Currently, I am postdoctoral researcher and ML senior Engineer at the Faculty of Computer Science in Namur.

I am looking for a position in data science, machine, or deep learning engineering.

SKILLS

- Python (NumPy, Pandas, Scikit-Learn, TensorFlow, Keras, Flask …)
- Git
- Time Series Forcasting
- Machine Learning modeling
- Deep Learning (CNN, RNN, GAN)
- MySQL
- Data Visualization
- IT Team management
- C++ & java Programming
- Image & video processing
- Leadership experience
- Internet of Things
- Web & mobile app development

EXPERIENCE

Postdoctoral Researcher and Sr. ML Engineer - Faculty of Computer Science – University of Namur • 01/03/2022 - Current – Namur (BE)

Currently, I am a postdoctoral researcher at the Faculty of Computer Science of the University of Namur. I work in direct collaboration with an industrial company (VOCSens) and the Walloon region to calibrate low-cost gas sensors using new machine learning algorithms. The purpose of this postdoctoral research is to define, design, and evaluate machine learning models to calibrate sensors to predict gas concentrations in the environment. Due to data scarcity, I need to integrate domain constraints given by experts to help learn algorithms and ensure greater transparency to our industrial partner. One of the scientific challenges is therefore to design relevant types of constraints and to prioritize them.

Postdoctoral Researcher & data scientist - Faculty of Engineering – University of Mons • 23/03/2021 – 01 /04/2022– Mons (BE)

After the completion of my Ph.D., my goal in this position was to pursue additional research and training to improve my skills in AI and data science. My activities were based on the continuation of the improvement of my research results to make them more accessible and transparent by the various partners. My first task was to perform new artificial intelligence methods pipelines for the explainability and interpretability of AI results.

External intern in Deep Learning • Case Western Reserve University– Cleveland • 01/01/2019 – 20/12/2019 – Ohio (USA)

During this internship, a large part of my doctoral thesis work was carried out thanks to the collaboration with Cleveland Clinic and the host department. Especially at the level of data acquisition which made to launch the necessary tests for the validation of the proposed methods.
The results have been published in several scientific papers in partnership with Case western's researchers.

Research & teaching Assistant – Faculty of Engineering – University of Mons
01/11/2015 – 23/03/2021 – Mons (BE)

As a teaching assistant, I participated in the writing and supervision of exercises projects, and practical work related to the subjects of Artificial Intelligence (AI), Advanced Deep Learning, Object-oriented programming, Internet of Objects (IoT), Mobile and Web technologies, Artificial vision, multimedia processing, and basic management of data.
At the scientific research level, several purposes have been achieved, such as the development of new methods and technologies for predicting the response

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LANGUAGES

- **French**
  Second native language
- **English**
  Professional

PROJECT & TEACHING ACTIVITIES

- **Data Analytics Project**
  Data visualization
  Data acquisition pipline
  Data understanding
  ML/DL modeling

- **Artificial Intelligence**
  Multi Agent Systems
  Machine Learning
  Deep Learning (CNN)

- **Advanced Deep Learning**
  RNN, LSTM, etc.
  Encoder/Decoder

- **Multimedia processing**
  Feature extraction
  Image indexation

- **Data modeling**
  SQL.
  Database management systems.

- **Mobile Applications programming**
  Android and IOS programming.
  React native.

- **Object Oriented programming (C++, Java)**
  Design of algorithm.
  Fundamental C++ & Java programming.

- **Supervision of final year project (Engineer)**
  Projects using Deep Learning
  Projects using image processing

of breast cancer to chemotherapy based on image processing and deep learning. These research findings have been published in international journals and presented at many conferences over the world. This work led to the defense of my doctoral thesis in engineering sciences and technology.

Intern computer vision Engineer – Jules Bordet Institute 01/01/2016 – 20/12/2016 – Brussels (BE)
Thanks to this internship, the medical issues of the thesis were understood and mastered. This made to provide more solid solutions in partnership with radiologists and specialists.

EDUCATION AND TRAINING

Ph.D. Of Engineering Sciences And Technology – 24 / 03 / 2021 – Faculty Of Engineering – University of Mons (BE)

Master's degree in computer sciences & Image Processing – 15/07/2015 – Faculty Of Sciences – Fez (MA)

Bachelor's Degree in Mathematical and Computer Science – 15/06/2013 – Faculty of Science – Oujda (MA)

PROJECTS

- **Low-cost sensors calibration using ML – (**developing API)
  (01/03/2022 – CURRENT)

- **Explainable AI for Medical Imaging** (end-to-end pipeline)
  (24/03/2021 – 14/09/2022)

- **The prediction Of breast cancer response to chemotherapy by Deep Learning and Image processing (**01/01/2016 – 23/03/2021)

- **Monitoring Robot** (end-to-end user API)
  (17/07/2018– 19/07/2019)

- **Cloud-based Toolbox for Computer Vision** (complete API)
  (17/07/2016 – 19/07/2017)

SCIENTIFIC PUBLICATIONS

- **More than 10 articles published in journals**
- **More than 09 articles published in international conferences**
- **Google scholar**

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