TERBOUCHE Hacene

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English, French, Arabic.

Education

Télécom SudParis, scholarship of Excellence — Paris, France
Master 2 TRIED - Master of Data Science and Artificial Intelligence - Université Paris-Saclay. — *Sep 2020 - present*
Courses: *Statistical Data Analysis, Machine Learning, Deep Learning, Data bases, Big Data.*

École Nationale Polytechnique — Algiers, Algeria
Electronics State Engineer - Master Degree in Signal and Communication; valedictorian. — *2015 - 2020*
Courses: *Signal and Image, Networks and telecommunications, Embedded Systems, Programming and operating systems.*

Lycée Lakhdar Belmadani — Sétif, Algeria
Baccalaureate in Technical Mathematics; Rating: excellent, national ranking: 11. — *June 2015*

skills

Programming Languages: Python, SQL, C/C++, Matlab, SAS.
Deep Learning Frameworks: TensorFlow, Keras, PyTorch, TensorBoard.
Libraries: OpenCV, Sklearn, Pandas, NLTK, NumPy, Matplotlib, Seaborn, Scipy.
Development Tools: Git, CLI, Anaconda, PyCharm.
Platforms: Linux, Windows, Arduino, Raspberry, Nvidia Jetson Nano, Intel FPGA, ARM Mbed.

Experience

Master Internship, POWDER — Paris, France
Video highlighting based on human emotional behavior for video games footage — *Mar-present*

R&D Engineer Internship, LDCCP Laboratory — Algiers, Algeria
Deep Learning for Epileptic Seizure Prediction using EEG Signals — *Apr-Aug 2020*

- Effected data processing, LOO cross-validation technique and resampling techniques to overcome imbalanced dataset.
- Proposed and implemented a first model based "1-D Fully Convolutional Neural Networks (FCNN)" architecture and a second one based on "Long-term Recurrent Convolutional Network (LRCN)" architecture.
- Tuned hyper-parameters based on random grid using Tensor-Board Toolkit.
- Performed a testing method, that proves the robustness of the proposed algorithms over different seizures, for performance evaluation and comparison of results.

Master thesis project, École Nationale Polytechnique — Algiers, Algeria
Extraction of personal information from the biometric identity card — *Sep-Dec 2019*

- Collected and Annotated data (pictures of the back side of ID cards).
- Performed image processing techniques such as filtering and morphological operations to recover each character separately from the card's full picture.
- Trained a CNN model for classification, the result of which is used to form the last name, first name, date of birth, expiration date and gender.

Summer Internship, Erasmus Program, Université Paris Sud — Paris, France
Real time object detection on Raspberry PI — *June-Aug 2019*

- Implemented the pre-trained algorithm "YOLO v1".
- Post-processed the output using "Non-max suppression".
- Conceived object detection system on video streaming using a camera PI.

Certifications

- DeepLearning.AI TensorFlow Developer on Coursera.
- Deep Learning Specialisation by Andrew Ng on Coursera.
- Statistics with Python Specialisation by University of Michigan on Coursera.
- Mathematics for Machine Learning Specialisation by Imperial College London on Coursera.
- Machine Learning by Andrew Ng on Coursera.
- Natural Language Processing with Classification and Vector Spaces on Coursera.
- Applied AI with DeepLearning by IBM on Coursera.