lalifinaritra **RAKOTONIAINA**

DATA SCIENTIST

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SUMMARY

As a junior Data Scientist, I am passionate about cutting edge technologies and willing to learn new Machine Learning and Deep Learning techniques, and applying it in industrial and profesional context. I am looking for new challenging missions in these areas.

EXPERIENCES

IDEMIA Identity & Security   *Courbevoie, France*
DEEP LEARNING RESEARCH INTERN   *July 2020 - December 2020*
• Implemented from research papers state of the art of semi-supervised learning methods.
• Benchmarked algorithms performance on specific task.
• Developed a semi-supervised learning framework for face detection task and applied it on NIR Images
• Optimized inference and post-process pipeline.
• *Techniques :* Virtual Adversarial Training, Unsupervised Data Augmentation, Tensorflow

AXYS Consultant   *Paris, France*
NLP RESEARCH PROJECT   *October 2019 - Juin 2020*
• Research project on meeting summarization from speech recognition system transcripts.
• Implemented different summarization methods based on sentences embedding computed with transformer architecture.
• Developed python summarizer module with «fit - predict» format in order to be exploited easily by the users.
• *Techniques* : Transformer, CamemBERT, FlauBERT, Pytorch

DOLD Industries Limited   *Zejtun, Malta*
RESEARCH AND DEVELOPMENT ENGINEER INTERN   *May 2019 - July 2019*
• Created data management and storage platform (characteristics, location, maintenance) for machines used in the factory.
• Developed numeric documentation system associated with all produced parts.

SNCF Company   *Paris, France*
METHODS ENGINEER APPRENTICE   *2016 - 2019*
• Led a project of digitization of compliance sheets and maintenance documents. 95% of documents used are in numeric version.
• Developed automatic tools of data analysis and performance dashboard : collecting production data, displaying time, related issues and enhancement of each operation.
• Conducted data analysis and worked with key operations stakeholders to implement changes in order to enhance work conditions and increase productivity.

PROJECTS

GENERATING JOHANN SEBASTIAN BACH'S MUSIC SEQUENCES
• Training an language model of the Bach's music and generating new sequences.
• *Techniques :* LSTM Many-to-Many, One-to-Many, Keras

FUSION OF ALGORITHMS FOR FACE RECOGNITION
• Building a fusion of algorithms to construct the best suited solution for comparision of a pair of images.
• *Techniques :* XGBOOST, LightGBM

TECHNICAL SKILLS

DATA SCIENCE SKILLS :
• Machine Learning (regression, classification, clustering, timeseries,...) using **Sklearn, Pandas, Numpy, Scipy, SHAP, Seaborn**
• Deep Learning frameworks : **Tensorflow, Keras, Pytorch**
• Computer Vision: **OpenCV, PIL, imgaug**
• Natural Language Processing: **NLTK, Spacy, Transformers**

COMPUTER SCIENCE SKILLS :
• Programming Languages : **Python, Scala, SQL, JavaScript**
• Dev-ops : **Docker, Git**
• Databases : **MySQL, MongoDB, Cassandra, ElasticSearch**

EDUCATION

Telecom Paris 🌐   *Paris, France*
MSC IN APPLIED MATHEMATICS AND DATA SCIENCE   *2019 - 2020*

University of Technology of Compiegne 🌐   *Compiegne, France*
MASTER'S DEGREE IN INDUSTRIAL ENGINEERING   *2016 - 2019*