Hajer ESSEFI

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EDUCATION

Paris Descartes University (Université de Paris) Tunis, Tunisia
Joint Master's degree program (TICV) with ENIT in information processing (Signal Perception Image) *Nov, 2019*

National Engineering School of Tunis (Ecole Nationale d'Ingénieurs de Tunis) Tunis, Tunisia
Degree: Data and Software engineering *Nov 2019*

Dickinson State University (DSU) North Dakota, USA

Preparatory Institute of Engineering Studies Of Monastir Tunis, Tunisia

EXPERIENCE

Alef Education Abu Dhabi, UAE
Data Scientist (NLP Specialist) *Jan 2022 – Ongoing*

- Design and implement NLP solutions to create an intelligent chatbot and use it in production
- Benchmarked intent recognition and entity extraction models (Transformers, RASA, LR, DIET architecture)
- Built a question and answering (QA) system using Haystack (DPR, elasticsearch, tfidf, mt5)
- Helped implement and document APIs using FastAPI delivered in line with the delivery cycles
- Ran unit tests and implemented performance testing scripts on the project's components

XQUANT : Finance & AI Tunis, Tunisia
Data Scientist (NLP) *Dec 2019 – Dec 2021*

- Led the design for the ESG scoring project to build an ethical investment portfolio for businesses
- Guided and mentored data science interns and junior data scientists.
- Designed and implemented a text search engine based on semantic similarity (Sentence Transformers, BM25)
- Finetuned BERT models to integrate a sentiment analysis module

XLIM Research Centre – Research Centre on Cognition and Learning (CeRCA) Poitiers, France
Intern (Computer vision using Deep Learning *March – September 2019*

- Integrated an intelligent human pose detector/estimator in videos into Plavimop software
- Implemented a GRU network for action recognition based on the 2D human body joints in RGB videos
- Outperformed baseline results in state of the art for Human Action Recognition in videos (publication)

Business & Decision *Tunis, Tunisie*
R&D Intern in the Data Science department (NLP project) *July – August 2018*

- Scraped text data automatically from a sales website using Selenium
- Implemented machine learning models to predict house and car prices & product category

Academic Project Tunis, Tunisie

- Built a Yoga pose classifier using CNN architecture and built a flask app for demo *March – April 2018*
- Trained models on an EC2 Linux instance in the cloud using AWS
- Automated scraping images of Yoga poses from Google Images using Javascript

PUBLICATION & ACHIEVEMENTS

- Essefi, H.; Ben Ahmed, O.; Bidet-Ildei, C.; Blandin, Y. and Fernandez-Maloigne, C. (2021). **TWIN-GRU: Twin Stream GRU Network for Action Recognition from RGB Video**.In *Proceedings of the 13th International Conference on Agents and Artificial Intelligence - Volume 2: ICAART*
- Recipient of Seeds for The Future 2018 with Huawei: Fully funded scholarship program in Shenzhen China
- Recipient of Thomas Jefferson Scholarship (1 year fully funded) in the USA majoring in Computer Science

LANGUAGES & RELATED TECHNICAL SKILLS

- Fluently trilingual in Arabic, English and French
- Python Programming, Linux, bash, AWS, SQL, Docker, git
- Python packages: Pandas, opencv, spacy, Keras, Selenium, Sickit-learn, Matplotlib, flask, FastAPI, Pytest, Locust