

Ayoub EL HOUDRI

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EDUCATION

CY Paris University, ENSEA and ETIS Lab (CNRS) <i>Master of Research in Artificial Intelligence and Complex Systems Modeling</i>	Sept 2022 - 2023 <i>Cergy, France</i>
CY Tech <i>Master of Engineering in Applied Mathematics and Computer Science</i>	Sept 2020 - 2023 <i>Cergy, France</i>
Classe Préparatoire aux Grandes Ecoles <i>Equivalent to a Bachelor of Science in Mathematics, Physics and Computer Science</i>	Sept 2018 - 2020 <i>Lille, France</i>

EXPERIENCE

Median Technologies May 2023 - October 2023
Data Scientist (Intern) *Sophia-Antipolis, France*

Worked on generative AI in medical imaging, focusing on lung segmentation and cancer screening. Implemented model architectures and refined training methods to improve segmentation accuracy, as well as managed product deployment.

Karmen Jun 2022 - Sept 2022
Data Scientist & Software Engineer (Intern) *Paris, France*

Developed an engine for extracting tabular data from financial documents using deep learning, OCR, and image processing techniques. I deployed the entire pipeline as an internal service accessible through an API and a low-code platform.

Digimind Labs Jun 2021 - Sept 2021
Machine Learning Engineer (Intern) *Berlin, Germany*

Worked on the development of a graph-based convolutional neural network for reconstructing plastic bottle shapes from single RGB images. Additionally, I was in charge of building a 3D synthetic data generator for data augmentation purposes.

PROJECTS

Neural Modeling of the Hippocampus for Navigation Tasks
Conducted computational neuroscience research on hippocampal place cell dynamics as a response to environmental changes.

Modeling Rare Event Outcomes for Enhanced Decision-making
Development of predictive models to identify and forecast rare event outcomes, and enhance decision-making processes.

LLaMa2 Fine-tuning with QLoRa on Medical Data
Fine-tuning LLaMa2 on textual medical data to better assist medical staff.

NLP-Driven ESG Company Scoring with BERT
Developed a Streamlit dashboard for in-depth analysis of news articles, leveraging a BERT model for ESG scoring of companies.

SaaS Platform for Automated Job Offer Analysis
Developed an end-to-end pipeline integrated into a platform for scraping, analyzing, and classifying job offers.

Explaining Electricity Futures Prices in France and Germany
Analyzed daily electricity futures using statistical models with meteorological and commercial data in France and Germany

AWARDS

National Mathematical Olympiads Ranked 10th in the National Olympiads of Mathematics in 2018

Excellence Scholarship A scholarship offered to the best high school students in the country to study abroad

SKILLS

Programming Languages Python (Pandas, GeoPandas, Matplotlib, Numpy, Scipy, PyTorch, Jax, Numba, Transformers, LangChain, PySpark, SpaCy, Scikit-learn, OpenCV, XGBoost, LightGBM, Streamlit, FastAPI, Scrapy, BeautifulSoup, Selenium, MLflow), R, Matlab, SQL, C, Linux Bash.

Software and Tools Git, GitHub Actions, Docker, Airflow, Kafka, AWS (S3, EC2, ECS, RDS, Lambda), Dataiku

Languages English (Bilingual proficiency), French (Native proficiency), Arabic (Bilingual proficiency)