Ahmed Mrabet

(AI Engineering) student at Ensias Rabat, looking for an end-of-studies internship starting in Feburary 2024

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EXPERIENCE

Yakeey — Casablanca, Morocco
Machine Learning Engineer Intern — *June 2023 - August 2023*
- Utilized high-resolution satellite imagery for building footprint extraction, replacing manual collection.
- Built a suitable model for this task, achieving 94.35% accuracy.
- Developed an algorithm to convert predicted segmentations into real-world coordinates.
- Integrated APIs for real-time data acquisition in large areas.

KubicBits — Casablanca, Morocco
AI & Backend Engineer Intern — *June 2022 - September 2022*
- Engineered an advanced algorithm for the multi-vehicle routing problem, resulting in a 75% improvement in route generation speed and a 23% enhancement in route optimization.
- Developed a web application incorporating RESTful APIs for on-demand route planning.

EDUCATION

National School of Computer Science (ENSIAS) — Rabat, Morocco
Artificial Intelligence Engineering — *September 2021 – June 2024*
- Relevant coursework includes Mathematics, Statistics, Big Data, Data Analysis, Machine Learning Theory, High-performance computing, Deep Learning, Deep Reinforcement Learning, and Time Series.

Lycée Moulay Hassan (CPGE) — Tangier, Morocco
Preparatory Classes MPSI-MP — *September 2019 – June 2021*
- Completed a two-year undergraduate program in Mathematics and Physics.

PROJECTS

Protein on Protein Interactions Prediction
Research Project in Deep Learning — *January 2023 – June 2023*
- Formulated a Graph Neural Network to predict protein-protein interactions between Homo sapiens and SARS-CoV-2.
- Explored various features and methods to enhance prediction accuracy, achieving an accuracy of 99.87%.

Traffic Light Optimization
Academic Project — *January 2023 – June 2023*
- Constructed a simulation environment to emulate real-world traffic scenarios for reinforcement learning agents.
- Implemented a multi-agent Deep Reinforcement Learning (DRL) framework, resulting in a 31% reduction in congestion through light timing adjustments.

Custom Transformer Model for Medical Assistance
Personal Project — *December 2022 – February 2023*
- Trained a transformer model built from scratch on a medical dataset to assist doctors in patient interactions.
- Open-sourced the project, highlighting text generation as a medical assistant tool.

SKILLS

- **Languages :** French (Bilingual), Arabic (Bilingual), English (Fluent), Spanish(Beginner)
- **Programming Languages :** Python, R, Java, C/C++, Bash
- **Libraries / Frameworks :** Pandas, Scikit-Learn, NumPy, Pytorch, Pytorch Lightning, Transformers, TensorFlow, Keras, Django, Fastapi, Flask, Pytest
- **Databases & Big Data Tools :** MySQL, TinyDB, Spark, Cassandra, Hadoop, Kafka, Postgres, MongoDB
- **Software & Tools :** Docker, Cuda, Jupyter, Latex, Postman, AWS
- **Version Control :** Git