



Sarra Ayed

Engineering Student

Data Science

Seeking a 4-6-month end-of-studies internship

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WORK EXPERIENCE

Data Scientist Internship

Esprit Tech RDI – Ariana, Tunisia

JUNE 2023 - AUGUST 2023

- Independently tested **DRL**, **GHMM**, **HMM**, and **LSTM** models for Ethereum price forecasting.
- Discovered DRL with the lowest Mean absolute percentage error (MAPE) of 2.82% outperforming LSTM (5.22%) and HMM (5.43%) and even the GHMM(2.94%).
- Choosing DLR enhanced our ability to forecast short-term Ethereum movements empowering investors with a more reliable tool for profitable trading decisions.

Full Stack Developer Internship

Anypli – Monastir, Tunisia

JUNE 2022 - AUGUST 2022

- Combined **Laravel**'s backend framework with **MySQL** for data management, while implementing **AJAX**, **jQuery**, and **Blade** templates.
- Developed a user-centric survey app for seamless data management, interactive experiences, and personalized engagement, driving increased user participation.

ACADEMIC PROJECTS

Knowledge Extraction and Recommendation System [GitHub](#)

SEPTEMBER 2023 - NOVEMBER 2023

- Extracted and organized **PMBOK** and **PMI** data using Python libraries for NLP preparation.
- Used **NLP** to create a structured **conceptual graph** identifying project management concepts and their relations..
- Built a project management assistant using **Graph Neural Networks (GNN)** for enhanced insights from structured knowledge.

Career Center Platform – MindMatch [GitHub](#)

JANUARY 2023 - JUNE 2023

- Scraped 40,000+ job descriptions and resumes from LinkedIn, job boards, using **selenium** and **BeautifulSoup**.
- Employed data science methods like **KMeans** clustering and **SentenceTransformers** for detailed data analysis.
- Developed a **Job Recommendation System** and fine-tuned an OpenAI-powered chatbot using the collected data.

Yoga Poses Classification [GitHub](#)

JANUARY 2023 - FEBRUARY 2023

- Engineered a **CNN** model in **TensorFlow Keras**, optimizing image diversity through augmentation and implementing meticulous preprocessing.
- Designed a robust **CNN** architecture for yoga pose classification, integrating strategic convolutional layers with ReLU activation and max pooling, and validating image augmentation impact on dataset quality.

Chronic Kidney Disease Diagnosis [GitHub](#)

OCTOBER 2022 - DECEMBER 2022

- Improved data quality through **cleaning**, **visualization**, and preparation for predictive modeling.
- Compared classification models (**KNN**, **Naive Bayes**, **SVM**, **RF**, **Decision Tree**) to find the best approach.
- Evaluated model performance using key metrics following the **CRISP-DM** methodology.

TECHNICAL SKILLS

Programming Languages

Python | **R** | **C#**, | **Java** | **SQL**
JavaScript | **Scala** | **PHP** | **C** | **HTML**

Python Libraries

NumPy | **Pandas** | **Matplotlib** | **Seaborn** | **SciPy**

Machine Learning

Linear Regression | **Decision Trees** | **RF**
KNN | **SVM** | **NB** | **K-Means** | **LogReg** | **HMM**

Deep Learning

TensorFlow | **PyTorch** | **Keras** | **BERT** | **CNN** | **RNN** | **GNN** | **GAN** | **NLP** | **LSTM**
Reinforcement Learning

DataBase

MySQL | **SQL** server | **MongoDB**
NoSQL Databases

Frameworks and Libraries

Django | **React** | **.NET** | **Spring Boot**
Laravel | **jQuery**

Tools

Apache Spark | **Kafka** | **ETL Tools**
CI/CD | **Git** | **Swagger** | **Postman**.

EDUCATION

Private Higher School of Engineering and Technology ESPRIT

SEPTEMBER 2019 - JUNE 2024

Data Science Engineering Degree

Relevant coursework: Machine

Learning, Statistics, Big Data Analytics, Deep Learning, Probability

PORTFOLIO

sarayed.github.io

LANGUAGES

Arabic (Mother tongue)

English (Fluent)

French (Intermediate)

German (Beginner)

HOBBIES

Reading | Gaming | Painting

CERTIFICATIONS

HACKATHON – Sequence-Based Predictor for The Impact of Mutation On Protein Stability

COURSERA – Natural Language Processing Specialization

NVIDIA – Building Transformer-Based Natural Language Processing Applications

NVIDIA – Applications of AI for Anomaly Detection