Yasmina Elkhazen

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https://yasminaelkhazen.github.io

Education

University of Tunis, Higher National School of Engineering of Tunis – Tunis, Tunisia Applied Mathematics and Modeling Engineering Degree

2022 - 2025 (expected)

University of Carthage, Preparatory Institute of Bizerte – Bizert, Tunisia

Passed the national exam for school of engineering entry

2020 - 2022

Internships

Data Science Instructor

GoMyCode, Tunisia - Sept 2024 - now

• Instructing a part-time 5-month BootCamp.

Al Engineer Intern

Yopex, Tunisia - July 2024 - Sept 2024

• Designed and implemented a content-based recommendation system using Al-generated data. **Keywords**: LLM, NLP, Transformers, Hugging Face.

Machine Learning Intern

Smartovate, UK (online) - June 2024 - Aug 2024

 Automated organization tools using NLP techniques achieving 0.85 F1 score accuracy. Keywords: NLTK, Sci-kit Learn, Keras, Pandas, Google Cloud Platform.

Machine Learning Intern

ITC Consulting Group - July 2024 - Sept 2024

 Developed a classification model using KNN to identify internal risks and implemented it on NextGRC platform. Keywords: Internal Audit, Git, GitHub, Docker.

Data Science Intern

Délice Danone – July 2023 - Aug 2023

• Collected and preprocessed consumer data and conducted behavior analysis using statistical tools. **Keywords**: Data Cleaning, Data Visualization, Python.

Certifications

- Azure AI Fundamentals AZ-900 Microsoft
- Azure Data Fundamentals Microsoft

Research

- 1. Report on Educational Trends in Tunisia (2023-2024)
- Utilized predictive modeling techniques to assess future trends in mathematics education.
- Developed a regression model with an F1 score of 0.8 to predict when mathematics education will constitute less than 10% of total students.
- Collaborated with classmates to suggest improvements in education methods.
- 1. Optimization Algorithms for Nonlinear Systems: A Comparative Study (2023)

- Conducted research comparing algorithms: Newton, Adam, Adagrad, and Marquardt-Levenberg.
- Suggested enhancements for performance, convergence, and computational efficiency.
- 1. LLMs for Data Synthesis and Text Generation: Summer Internship (2024)
- Reviewed scholarly articles on large language models (LLMs) to explore their potential for data synthesis.
- Generated datasets showcasing innovative solutions through extensive research.

Projects

- 1. Fact-Checking AI Model for Journalism (Ongoing, Sept 2024)
- Exploring the use of LLMs in detecting fake news.
- 1. Real-time Satellite Tracking Web Application (2023-2024)
- Developed a web app for tracking satellites using Web Scraping, OpenStreetMaps, Flask, and ReactJS.
- 1. Blink-to-Morse Project (2024)
- Developed a project that converts eye blinks into Morse code for communication assistance, inspired by 'Interstellar' and 'Breaking Bad', using OpenCV and Mediapipe.

Skills

- Programming Languages: Python, C++, C, Java, PL/SQL, HTML, CSS, JavaScript, Matlab
- Database Management: Microsoft SQL Server, PostgreSQL, MongoDB
- Machine Learning Frameworks: TensorFlow, Keras, PyTorch, LightGBM, NLTK, SpaCy, Hugging Face Transformers

Volunteering

- Media Manager at Nerdata ENSIT Club: Collaborated on data-driven projects with new students.
- Junior Enterprise ENSIT: Worked as a business development member.

Hobbies

Traveling, attending events, reading articles, blogging, music, movies, cooking.