

Skills

- Python (Pandas, NumPy, SciPy, Matplotlib, Keras...)
- SQL (MySQL, SQLite)
- Machine Learning
- Data Analysis
- Data Visualization
- Mathematical Modeling
- Communication
- Storytelling

Work Experience

- INTERN RESEARCH ASSISTANT** – Brock University – St. Catharines, ON, CA February 2024 – June 2024
- Developed the **first quantitative** framework to measure "Greenhushing" in S&P 500 sustainability disclosures using **Natural Language Processing**, providing groundbreaking insights into corporate transparency.
 - Extracted key themes from sustainability reports through **topic modeling**, uncovering industry-wide trends.
 - Optimized data-fetching, **reducing processing time** from 8 minutes per file to 6.5 minutes for all files combined.
 - Linked "Greenhushing" to excess CEO compensation, revealing a positive correlation in the **econometric analysis**.
- INTERN QUANTITATIVE ANALYST** – Laevitas – Tunis, Tunisia July 2023 – August 2023
- **Developed** and implemented a funding rate model for perpetual swaps using the **Ornstein-Uhlenbeck process**.
 - Applied **Merton's Jump-Diffusion process** to model Bitcoin index prices, effectively accounting for market jumpiness and volatility.
 - **Designed** and **backtested** a pipeline to estimate the liquidation time of contracts using **Monte Carlo simulations**.

Education

- POLYTECHNIC ENGINEERING DEGREE** – Tunisia Polytechnic School (EPT) – Tunis, Tunisia June 2024
Multidisciplinary engineering studies with a focus on Applied Mathematics, Data Science, Finance and more.
- PRE-ENGINEERING STUDIES** – Sfax Preparatory Engineering Institute (IPEIS) – Sfax, Tunisia June 2021
Preparatory cycle for engineering studies with a major track in Mathematics and Physics.

Projects

- MENA-MPFUS PLASMA PHYSICS AND FUSION SCHOOL** – Participant – Hammamet, Tunisia June 2023
- Utilized **Data Science approach** to identify the minimum electrical tension required to initiate plasma in a tokamak.
 - **Presented** findings to experts and peers on the final day of the event and contributed to the scientific discussion.
- ACCELERATING SUPPLY CHAIN USING ACO** – Academic Project – Tunis, Tunisia April 2023 – May 2023
- Accelerated supply chain operations using the **Ant Colony Optimization (ACO)** algorithm cutting down time by 60%.
 - Ensured cost-effective demand fulfillment across 50 retail points, reducing transportation costs by 80%.

Leadership Experience

- AIESEC IN TUNISIA - CARTHAGE** – iGTe Department Team Member – Tunis, Tunisia February 2022 – February 2023
- Collaborated in a team to facilitate internships, coordinating between international talents and local business owners.
- EPT SANDBOX 1.0** – Team Leader and Project Pitcher – Tunis, Tunisia March 2022 – May 2022
- **Led a team** to develop FlowRide, a startup idea focused on creating autopiloted Segways for visually impaired individuals.
 - **Pitched** the startup idea in a **high-stakes 3-minute presentation**, securing selection for incubation by WikiStartup.

Language Skills

ARABIC: Native Speaker

FRENCH: DELF B2 Score: 98/100

ENGLISH: TOEIC Score: 970/990