+393513673525
Rome, Italy
Ettayyebi.hamid@gmail.com

HAMID ETTAYYEBI
Data Scientist

Portfolio: hamid701.github.io
github.com/Hamid701
linkedin.com/in/ett-hamid

SKILLS

Programming	**Python** (Pandas, NumPy, SciPy, Scikit-Learn, TensorFlow, Keras, XGBoost, Plotly), **SQL** (MySQL)
Machine Learning	Deep Learning, Predictive Modeling, Feature Engineering, Model Deployment, Time Series Forecasting, Fine-Tuning, Machine Learning Pipelines, Regression Analysis, Geospatial Analysis
Data Visualization	Matplotlib, Seaborn, Plotly, Interactive Dashboards, Choropleth Maps
Tools & Platforms	Git/GitHub, Docker, Streamlit, Dash, Jupyter Notebooks, LaTeX
Soft Skills	Data Storytelling, Problem Solving, Critical Thinking, Research Methodology, Domain Translation
Languages	Arabic (Native), English (C1), French (B2), Italian (Basic/Beginner)

TECHNICAL EXPERIENCE

Research Assistant / PhD Candidate (in Data Science) — Jan 2017 - Sep 2021
Mohammed V University — *Rabat, Morocco*

- Developed and optimized **Artificiel Neural Networks models** for daily solar radiation **forecasting**, reducing **Normalized Root Mean Square Error by 15%** compared to traditional models such as **SARIMA, Exponential Smoothing**, allowing more efficient energy grid management and optimized resource allocation for renewable energy systems.
- **Published and presented two peer-reviewed articles** on solar radiation forecasting, advancing methodologies in renewable energy predictions.

Mathematics Teacher — Sep 2017 - Aug 2024
Regional Academy for Training and Education — *Rabat, Morocco*

- Applied **data-driven analysis** to evaluate student performance trends, implementing a **custom analytics dashboard** that tracked progress metrics, leading to a 20% improvement in student scores.
- Developed structured lesson plans using an **analytical approach** to make complex concepts more accessible for students.

PROJECTS

Rentelligence AI: Predicting Italian Rental Prices — Jan 2025 - Apr 2025
Personal project - GitHub | Blog — *Rome, Italy*

- Developed an **XGBoost regression model** for Italian rental prices, achieving a **confidence level of 82.32%**, with a **mean absolute error** of just **€303**, enabling renters and landlords to make **data-driven decisions** in Italy's diverse housing market.
- Created an **interactive web application** using **Streamlit** that allows users to input property features and receive instant price predictions, incorporating **interactive choropleth maps** and **regional price comparisons** to visualize market trends across different Italian regions and cities, enhancing market transparency and user decision-making capabilities.

Transformer-Based Global Horizontal Irradiance Forecasting — Aug 2024 - Jan 2025
Personal project - GitHub | DOI: 10.13140/RG.2.2.36728.15365 — *Rome, Italy*

- Inspired by NLP problems, developed a novel **Transformer-based model** for Global Horizontal Irradiance (GHI) forecasting, achieving a **20% reduction in Root Mean Squared Error** compared to **LSTM models**, improving solar energy system efficiency by providing more accurate predictions of hourly GHI, allowing better grid management and reducing operational costs.
- Deployed an **interactive dashboard** using **Dash and Plotly**, enabling real-time visualization and comparison of predictions from Transformer and LSTM models, facilitating user-friendly analysis of forecast metrics, and allowing for the download of prediction data, supporting informed decision-making in solar energy management and grid operations.

EDUCATION

Phd Candidate In Applied Mathematics Statistics and Deep Learning (Incomplete) — Jan 2017 - Sep 2021
Mohammed V University

Master's Degree in Mathematics and Applications, Statistics, and Scientific Calculations — Sep 2015 - Sep 2017
Mohammed V University
Awarded the Highest score in the Master class.

CERTIFICATIONS

IBM Data Science Specialization — Feb 2025
Credential ID: W85E3XU7YR5X

PUBLICATIONS

Artificial Neural Networks for Forecasting The 24 Hours Ahead of Global Solar Irradiance — Sept Jun 2018 - Dec 2018
Published in AIP Conference Proceedings (2018) – DOI: 10.1063/1.5084983

Artificial Neural Network for Forecasting One Day Ahead of Global Solar Irradiance — Sept 2017 - Jun 2018
Published in Smart Application and Data Analysis for Smart Cities (SADASC'18)– DOI: 10.2139/ssrn.3179472