MAURIZIO VASSALLO

Data Scientist · AI Researcher

Curious and multidisciplinary researcher focused on applying AI across different domains. My work applies data science and machine learning to solve real-world problems in areas like optimization and intelligent decision-making.

PERSONAL INFO

Italian
mauri.vass.dev@gmail.com
Maurizio Vassallo
Maurizio Vassallo
MauriVass

REWARDS

- Awarded a competitive research grant (€2,300) to fund Master's thesis development in Belgium.
- Achieved 2^{nd} place in an Artificial Intelligence competition, securing a cash prize (€500) among numerous participants.
- Won full scholarship (€6,500) for an exchange year at Tongji University (同济大学), ranking in the top 21% of applicants.

LANGUAGES

Italian: Native
English: Advanced (C1)
French: Intermediate (B2)
Chinese: Intermediate (HSK 3)

SKILLS

Programming Languages: Python, C/C++, C#, Java, JavaScript, MATLAB
Machine Learning & Data: PyTorch, TensorFlow, Scikit-learn, Pandas, NumPy, SciPy, Spark, SQL, Hadoop
Data Visualization: Matplotlib, Seaborn, Plotly
Development Tools: Git, Docker, LaTeX
Systems & Software: Linux, Windows, Unity3D, Unreal Engine, Blender, QGIS, Photoshop
Web & Protocols: REST APIs, MQTT, HTML, CSS

EDUCATION

10/2022 - GOING — **Ph.D. student: AI in Power Distribution Networks**
University of Liège — Liège, Belgium

10/2019 - 07/2022 — **Master's degree: Data Science and Engineering**
Polytechnic of Turin — Turin, Italy

09/2017 - 12/2021 — **Bachelor's degree: Computer Science Engineering**
Tongji University (同济大学) — Shanghai, China

09/2016 - 09/2019 — **Bachelor's degree: Computer Science Engineering**
Polytechnic of Turin — Turin, Italy

EXPERIENCES

02/2022 - 06/2022 — **Overvoltage Situations Forecast & Active Control in a Medium-Voltage Power Grid**
M.Sc. Thesis | University of Liège — Liège, Belgium
Compared different ML models to forecast overvoltage risks in a real medium-voltage grid. Implemented an RL agent to control generators, successfully mitigating voltage violations with minimal energy curtailment. (Github)

09/2021 - 12/2021 — **Collision Avoidance System using Reinforcement Learning**
B.Sc. Thesis | Tongji University (同济大学) — Shanghai, China
Researched and implemented RL architectures in a simulated UE4 environment. The agents learned to navigate complex tracks using LiDAR data, demonstrating zero-shot transfer to unseen environments. (Github)

04/2021 - 07/2021 — **AI & Backend Developer**
Internship | Morecognition — Turin, Italy
Engineered an ML pipeline to classify complex upper-limb movements from multi-sensor IMU/EMG data. Built and deployed a scalable backend server to manage user data and exercise analytics, supporting the development of a physiotherapy analytics platform. (Github)

03/2021 - 06/2021 — **New Opportunities from Autonomous and Connected Mobility**
Innovation Challenge | CLIK — Turin, Italy
Developed a V2X (Vehicle-to-Everything) communication prototype that delivered real-time parking availability to drivers, improving traffic flow and reducing search time in urban areas.

04/2019 - 06/2019 — **Java Junior Developer**
Internship | INTESA — Turin, Italy
Developed and deployed a new company website, optimizing SQL queries to improve database response time. Gained full-stack experience contributing to both back-end (Java) and front-end (JavaScript, HTML, CSS) components.

COURSES

09/2019 - 10/2019 — **Cybersecurity Academy**
Professional Training | Randstad — Milan, Italy
Intensive training in cybersecurity essentials including threat analysis, vulnerability assessment, security protocols, and defensive coding practices across hardware and software systems.

07/2017 — **The art of Game Programming**
Summer School | Artifex Mundi — Gliwice, Poland
Intensive summer program on Unity3D, covering fundamental principles of game physics, graphics, and system mechanics.