Tommaso Ferrario *ITA*

MSc Student

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Casatenovo, Italy | My Portfolio | Tommaso Ferrario

Highly motivated MSc Computer Science student at the University of Milano-Bicocca with a strong passion for Artificial Intelligence, Machine Learning, and Computer Vision. Currently conducting thesis research at Stevens Institute of Technology, developing innovative methods for scenario generation. Eager to apply academic and research expertise to solve real-world problems and contribute to cutting-edge projects in a leading technology company.

Work Experience

University of Milano-Bicocca Sep. 2024 – Dec. 2024
Junior Researcher *Milan, Italy*

» Reinforcement Learning - AI - Python - Problem Solving - Teamwork
› Development of a dynamic profiling system based on reinforcement learning for route recommendation in the tourism sector.
› Created a public service platform to make the profiling system easily accessible.

Education

University of Milano-Bicocca Sep. 2023 – Sep. 2025
Master's degree Computer Science, - Final grade: -/110 *Milan, Italy*

» **Thesis title**: (Ongoing - Research conducted at Stevens Institute of Technology, Hoboken, New Jersey)

University of Milano-Bicocca Sep. 2020 – July 2023
Bachelor's degree Computer Science, - Final grade: 107/110 *Milan, Italy*

» **Thesis title**: "Automatic traffic analysis: machine learning approaches for the analysis of traffic flows on road networks"

Projects

Academical: FloodNet Image Segmentation Jan. 2025 – Feb. 2025

» Image Segmentation - Deep Learning - Python - Teamwork - Problem Solving - Creativity
› Developed a semantic segmentation model (U-Net, SegNet, DeepLab) to identify flood areas in drone imagery post-Hurricane Harvey. Implemented data augmentation and fine-tuning techniques, achieving 85% pixel accuracy in flood detection, which aids in rapid disaster response.

Academical: Fine-Grained Food Classification Dec. 2024 – Feb. 2025

» Image Classification - Image Segmentation - Data Cleaning - Deep Learning - Python - Teamwork - Problem Solving - Creativity
› Designed and evaluated a fine-grained food classification system using image data. The project involved model training, data augmentation, and classification of 251 food classes, including degraded images, with comprehensive performance analysis.

Academical: Self-Driving Car Simulation Sep. 2024 – Feb. 2025

» C# - Unity 3D - Reinforcement Learning - Curriculum Learning - Agents - Teamwork - Problem Solving
› Developed a Unity-based self-driving car simulation using reinforcement learning to train a car agent to navigate complex environments. Employed curriculum learning to improve training efficiency and evaluated the agent's performance in various challenging scenarios.

Skills

Soft Skills Problem-Solving, Effective Communication, Adaptability, Teamwork, Creativity
Machine Learning Deep Learning (TensorFlow, PyTorch), Reinforcement Learning, Computer Vision (OpenCV, Image Processing), Natural Language Processing (NLP), Data Analysis
Databases Relational (SQL, MySQL), NoSQL (MongoDB, Firebase)
Tools & Technologies Git, Docker, REST, Algorithms, Data Structures, Android, Flutter
Programming Languages Python, Java, C#, C, Julia, Matlab, Dart, Go

Communication

Italian *Mother tongue* **English** *B2*