

FRANCESCO TORGANO

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EXPERIENCE

Machine Learning Engineer

02/2025 – 07/2025

Computational Biology and Bioinformatics Lab - Università degli Studi di Milano

- Developed and implemented software solutions for knowledge graph edge prediction in Python, contributing to the research and writing of a paper published in Bioinformatics Advances.
- Collaborated with researchers from the University of Granada to share and optimize code for graph embedding methods and edge prediction algorithms.
- Enhanced Python code modularity and performance through vectorization and optimization techniques, resulting in improved execution speed and maintainability.

Machine Learning Engineer Internship

03/2024 – 08/2024

Computational Biology and Bioinformatics Lab – Università degli Studi di Milano

- Generated random-walk and sampling-based embeddings of the graph to predict interactions between bio-entities (e.g., Disease-mRNA) achieving over 80% accuracy with scikit-learn models.
- Analysed Rust and Python code to address bias in the experimental setup, providing various fixes that improved performance by up to 20%.
- Co-authored a paper for an international conference, detailing the methodologies and results obtained.

Full Stack Developer Internship

01/2022 – 03/2022

Laboratory of Applied Intelligent Systems – Università degli Studi di Milano

- Developed AI agents in JavaScript to optimize game strength and user enjoyment in a web-based environment.
- Designed, built, and deployed a website for hosting UNO games, implementing single-player and multiplayer modes with Node.js, WebSockets, and MongoDB.
- Conducted a user experience survey and analysed the results to identify the most effective AI agent, leading to a 50% increase in perceived enjoyment.

EDUCATION

Master's Degree in Computer Science – 110/110 Cum Laude

10/2024

Università degli Studi di Milano

Bachelor's Degree in Computer Science

04/2022

Università degli Studi di Milano

PROJECTS

Trenode | JavaScript, Node.js, Express, EJS, Axios, Bootstrap, JQuery, Web Workers

- JavaScript web app for checking train status, featuring a station timetable and real-time notifications for platform changes, delays, or status updates using push notifications via web workers.

SocketChess | Javascript, Node.js, Express, WebSockets, Rust, WebAssembly

- JavaScript web app that uses Rust compiled to WebAssembly to enhance the performance of chess agents, enabling faster game processing and improved user interaction in real-time matches.

BoardgameSentimentAnalysis | Python, Pandas, Matplotlib, PyTorch, NLTK

- Python notebook that uses NLP techniques to analyse and extract the most liked and disliked aspects of a subset of boardgames from user comments.

SKILLS & INTERESTS

Languages: English (C1/Advanced), Italian (Native).

Programming challenges: I take part in the Advent of Code challenge each year to enhance my problem-solving skills and practice Rust, a programming language I enjoy, although I don't often get the chance to use it.

I hereby consent to the processing of this CV and the personal data contained within, by anyone who receives this document for the sole purpose of considering my application for employment opportunities, in accordance with Article 6.1(a) of GDPR (EU) 2016/679.