

Mattia Franzin

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● ESPERIENZA LAVORATIVA

01/02/2023 – 31/01/2025 Trento, Italia
JUNIOR SOFTWARE ENGINEER FONDAZIONE BRUNO KESSLER

- Maintaining and adding features to a chatbot integrated into an healthcare app (Java, microservice)
- Maintaining and adding features to a website that facilitates chatbot dialogue creation (Vue 3, TypeScript, CSS/Tailwind)
- Developing new libraries to streamline the creation and management of chatbots (Python)
- Creating chatbots for a research app, some of them integrating LLMs (Python/Docker/Kubernetes/Langchain, microservice)
- Monitored chatbot-related metrics through Grafana interfaces, with instrumentation of the corresponding code

02/09/2024 – 12/03/2025 Trento, Italia
TIROCINIO ESTERNO (NLP) FONDAZIONE BRUNO KESSLER

- Collecting data from multiple sources to create an Italian clinical dataset and a scientific dataset
- Performing continual pre-training on small language models to further improve model knowledge on medical-related tasks (clinical information extraction)

09/2021 – 05/2024 Trento, Italia
SOFTWARE DEVELOPER E-AGLE TRENTO RACING TEAM

As part of the Formula SAE team, I worked on writing a GPS parser, maintaining and updating a support library to manage the sending and receiving of messages through the car's CAN bus. I also added features and fixed bugs in the telemetry software. I was a member of the Driverless division, working on making the car autonomous

03/2022 – 19/09/2022 Trento, Italia
TIROCINIO INTERNO (ROBOTICA) UNIVERSITÀ DI TRENTO

Autonomous navigation system for ground robots: the existing interface with the robot's sensors was integrated into the ROS2 navigation stack, enabling it to move while avoiding obstacles. This was complemented by a planning system necessary for executing automatic movements.

03/09/2017 – 28/09/2017 Oderzo, Italia
ALTERNANZA SCUOLA-LAVORO ALGORTIMA S.R.L.

Created a catalog in Excel, entered data into a CMS, and added content to a web page.

● ISTRUZIONE E FORMAZIONE

12/09/2022 – 20/03/2025 Trento, Italia
LAUREA MAGISTRALE IN ARTIFICIAL INTELLIGENCE SYSTEMS Università degli Studi di Trento

Voto finale 110 |

Tesi Adapting Small Language Models to the Medical Domain: Exploring Continual Pre-training Strategies for Efficient Domain Adaptation

15/09/2019 – 19/09/2022 Trento, Italia
LAUREA TRIENNALE IN INFORMATICA Università degli Studi di Trento

Voto finale 110 |

Tesi Drone Surveillance: a ROS2 solution for ground robots autonomous navigation, with automatic mission controls

COMPETENZE LINGUISTICHE

Lingua madre: **ITALIANO**

Altre lingue:

	COMPRENSIONE		ESPRESSIONE ORALE		SCRITTURA
	Ascolto	Lettura	Produzione orale	Interazione orale	
INGLESE	B2	B2	B2	B2	B2

Livelli: A1 e A2: Livello elementare B1 e B2: Livello intermedio C1 e C2: Livello avanzato

COMPETENZE DIGITALI

Problem Analysis & Problem Solving | Docker, docker-compose | ROS, ROS2 | Linux | Git, GitHub & GitLab | Vue 3 | Javascript, Typescript, CSS, Tailwind | Computer Vision | PyTorch Lightning | Java | Python | SQL/NoSQL | Node.js (and Express) | NLP

PROGETTI

Progetto NLP (Moodify)

Developed a website using FastAPI that retrieves songs listened to by the user in the past week, extracts their lyrics, and analyzes the emotions (Ekman) using a RoBERTa model finetuned on the GoEmotions dataset. Once the dominant emotion is extracted, similar songs are suggested through the Spotify API

Link <https://github.com/Mattia2700/anlp-project>

Progetto di Ingegneria del Software

Developed RESTful APIs in Node.js (documented with Swagger) for booking sports fields, integrating Braintree/PayPal APIs (Sandbox). Subsequently, a frontend was created using React Native in the form of an Android app

Link <https://github.com/Mattia2700/campettiamo-api/wiki>

Progetto di tirocinio/tesi triennale

Autonomous navigation system for ground robots: the existing interface (used to provide data from the robot's sensors) was integrated into the ROS2 navigation stack, enabling the robot to move while avoiding obstacles. With the integration of a planning system developed by another student, it is possible to define multiple destinations

Link <https://github.com/Mattia2700/internship>

Progetto di robotica

Developed a system using a robotic arm that, with the assistance of a camera, can recognize LEGO blocks on a table (from different angles) and classify them correctly, placing them on another table

Link <https://github.com/Mattia2700/playground>