Simone **Maggi** Machine Learning and Software Engineer

Rome, Italy

i Available for relocation in Toulouse, France.



Working as a machine learning engineer, I have bridged the gap between the latest research findings and real-world business use cases. My approach is organized, scientific and pragmatic, even though I love mind-wandering and chaotic team brainstorming sessions, which I love. My interests and academic background encompass math, statistics, and software engineering.



Statistical Machine Learning Knowledge of Statistics (Frequentist, Bayesian, Hypothesis Testing). Supervised/Unsupervi-

sed ML models in Scikit-learn. Deep Learning Models with Pytorch (CNN, GAN, Adversarial Au-

Designing Object-Oriented architectures using modern C++, Python, Java. Programming

Micro-Services Architectures Containerization with **Docker** and Docker-Compose. Worked with Nginx, Keycloack, Redis,

RabbitMO, Kafka.

Relational databases SQL, NoSQL Elastic Search Database

Unix CLI, VS Code, GIT, MLFlow, Jenkins. OS and utility



WORKING EXPERIENCE

October 2022

Machine Learning and Software Engineer, HCL SOFTWARE, Italy

- > Research. Bringing new ideas and projects through POC and presentations.
- > Worked on multiple projects, improving functionalities and bug fixing:
 - > HCL AIDA: improved the ML Model Anomaly detection on multivariate time series.
 - > HCL Accelerate: implemented a Bayesian Statistical Model (PyMC) for risk management in Agile software development.
- > HCL Clara: added functionalities in Rasa backend, RAG question answering using Langchain.
- > Mentoring and tutoring newly hired colleagues, interns and teams in an internal Hackathon.

Python Anomaly Detection PyMC Docker Micro-services Architecture RAG Langchain

September 2022 April 2021

Research and Developmnet Engineer, CPM S.P.A., Italy

- > AI for Robotics: Developed a system for navigation of Autonomous Guided Vehicle (SLAM LiDAR navigation), using cutting-edge technology in the field.
- > Communication: Clear and simple presentations to deliver the results to the Stakeholders (Durr, Ger-
- > Dynamic environment: Master a new subject 'AGV & SLAM Navigation' independently while delivering and testing piece of software(C++, Python, C#).

C++ C# WPF SLAM Navigation

June 2018 March 2018

Machine Learning intern, SAN s.R.L., Italy

> Supervised Classification of ECG signals: ETL: Filter, Normalize and Label the biometric signals, and upload the processed data in a DataBase. ML: Implemented algorithm to extract biometric indicators (Python) from data to feed a Neural Network (TensorFlow) (86% accuracy). Train directly a multilayer 1-D CNN (Keras) on the signal (95% accuracy).

Python GIT Keras Tensorflow



EDUCATION

2021 M. Sc. Stochastics and Data Science, University of Turin: 110/110 cum Laude, Thesis: Semi-Supervised Irregular heartbeat detection using Deep Generative modelling.

Bachelor in Computer Engineering, Politecnico of Turin: 104/110 2018



LANGUAGES

Italian English • • • • •