# Simone Maggi Machine Learning Engineer

Rome, Italy

i Available for relocation in Toulouse, France.



Currently, I am employed at HCL Software, where I am involved in the end-to-end implementation of machine learning solutions, from statistical modeling to deployment in production environments.



### WORK EXPERIENCE

### October 2022 to till date

### Machine Learning Engineer, HCL SOFTWARE, Rome, Italy

- > Implement and deploy in production a new ML solution (link), based on Bayesian Stat (PyMC) for risk assessment within project management.
- > Drive probabilistic modelling & experimentation (MLFLow) and, model engineering parts, in collaboration with software architects and ML/software engineers.
- > Developed an RAG system, tuned and evaluated on the product documentation in collaboration with the technical writers. This system will be integrated with existing solutions to enhance user experience.
- > Coordination with the team (US, India and Italy based) in upgrading the product quality, customer support and demos.
- > Mentor the newly hired colleagues and interns to ensure they are actively involved in the projects.

Python PyMC Docker Micro-services Architecture RAG

## September 2022 April 2021

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

- > Development of a navigation system for Autonomous Guided Vehicle (SLAM LiDAR navigation), using cutting-edge technology. This system has been prototyped and tested on AGVs in a real worksite environment.
- > Knowledge on 'AGV & SLAM Navigation' while delivering and testing the piece of software (C++, Python,
- > Delivery of the results to the Stakeholders (Durr, Germany) via presentations

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**

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

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



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-

toencoder)

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

Micro-Services Architectures Docker and Docker-Compose. Worked with Nginx, Keycloack, Redis, RabbitMQ, Kafka

> Relational databases SQL, Elastic Search, Mongodb Database

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



# LANGUAGES

