

Simone MAGGI

Machine Learning Engineer

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Rome, Italy
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, spanning from statistical modeling to deployment in production environments.

WORKING EXPERIENCE

Today
October 2022

Machine Learning Engineer, HCL SOFTWARE, Rome, Italy

- > A R&D team in a **multicultural** environment (India, Italy, US).
- > **Implemented and deployed in production a new ML solution** (link) from scratch : a probabilistic ML model based on Bayesian Stat (PyMC) for risk assessment in the context of project management. In collaboration with a software architect and another ML/software engineer, I have personally led the probabilistic modelling, experimentation (MLFlow) and model engineering parts.
- > Developed a **RAG system**, tuned and evaluated on the product documentation in collaboration with the technical writers. The system will be integrated with existing solutions (HCL UnO and HCL Clara) to enhance user experience.
- > I have collaborated with the rest of the team in maintaining (bug and vulnerabilities fixing) the products, customer support, and demos.
- > **Mentored** newly hired colleagues and interns making sure that they are actively involved in the projects.

Python Anomaly Detection PyMC Docker Micro-services Architecture RAG

September 2022
April 2021

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

- > I have collaborated with another colleague in the development from scratch of a navigation system for Autonomous Guided Vehicle (SLAM LiDAR navigation), using cutting-edge technology in the field. The system has been prototyped and tested on AGVs in a real worksite environment .
- > I have learnt a completely new subject 'AGV & SLAM Navigation' independently while delivering and testing piece of software(C++, Python, C#).
- > Clear and simple presentations to deliver the results to the Stakeholders (Durr, Germany).

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

SKILLS

Statistical Machine Learning	Knowledge of Statistics (Frequentist, Bayesian, Hypothesis Testing). Supervised/Unsupervised ML models in Scikit-learn . Deep Learning Models with Pytorch (CNN, GAN, Adversarial Autoencoder)
Programming	Designing Object-Oriented architectures using modern C++, Python, Java .
Micro-Services Architectures	Docker and Docker-Compose. Worked with Nginx, Keycloak, Redis, RabbitMQ, Kafka
Database	Relational databases SQL, Elastic Search, MongoDB
OS and utility	Unix CLI, VS Code, GIT, MLFlow, Jenkins.

LANGUAGES

Italian ● ● ● ● ●
English ● ● ● ● ○