Simone **Maggi**

Machine Learning and Software Engineer

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Rome, Italy
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. My interests and academic background encompass math, statistics, and software engineering.

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	Containerization with **Docker** and Docker-Compose. Worked with Nginx, Keycloack, Redis, RabbitMQ, Kafka.
Database	Relational databases SQL, NoSQL Elastic Search
OS and utility	Unix CLI, VS Code, GIT, MLFlow, Jenkins.

Working experience

Today
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, Germany).
- 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.

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

Languages

Italian ●●●●●
English ●●●●○