SIMONE MAGGI

Via Celeste Negarville 26A, Turin, Italy | +393461323382

simone.maggi.work@gmail.com | LinkedIn | Portfolio

About me

Graduated with excellent mark in an Applied Math Master of Science, with a Bachelor degree in Computer Engineering and a successful working experience in AI for robotics. I am astonished by the rapid evolution of AI and I yearn for being part of this development to deliver its potential to society. Currently, I am eager to tackle new challenges in this field.

Skills

- **Programming:** Development skills in **Python** (Pandas, Pytorch for Deep Learning, Scikit-learn) and **R**. Knowledge of data visualization libraries(Matplotlib, Seaborn). Working experience in designing applications with Object-Oriented architecture using modern **C++**. Knowledge of WPF UI development using C#. Knowledge of Java and C. Use of GIT.
- **Statistical Machine Learning:** Rigorous knowledge of Statistics (Frequentist, Bayesian, Hypothesis Testing) to model uncertainty of the data and provide evidences and insights. Knowledge of time series data analisys (ARIMA). Deep understanding of the Supervised/Unsupervised ML models (Statistical Regressions, Decision Trees, SVM, Clustering, PCA). Experience in the implementation of Deep Learning Models with Pytorch and Keras (CNN, Variational Autoencoder, GAN, Adversarial Autoencoder).
- **Database Management:** Knowledge of **SQL**, relational algebra and PHP for database interactions.
- **System**: Good knowledge of Unix kernel-based operative systems.

Experience

Research and Development Specialist   Nov 2021 - Present

CPM S.P.A - DURR   Turin, Italy

- **AI for Robotics:** Implemented a new service with big impact on the company, in the field of Artificial Intelligence in Robotics (SLAM LiDAR navigation of Autonomous Guided Vehicle).
- **Self-Aware**: Drive the project from beginning to end with immediate high responsibility of final decision-making.
- **Team Working**: Part of a small(<5) and dynamic team where effective communication is the key.
- **Communication**: Clear and simple presentations to deliver the results to the Stakeholders (Durr, Germany).

Research and Development Intern   Jun 2021 – Nov 2021

CPM S.P.A. - DURR   Turin, Italy

- **AGILE**: Master a new subject 'AGV & SLAM Navigation' independently while delivering and testing piece of software(C++, Python, C#).

Machine Learning Intern   Mar 2018 - June 2018

SAN s.r.l   Turin, 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).

Education

M. Sc. Stochastics and Data Science, University of Turin : 110/110 cum laude   Sep 2018 - Apr 2021

Core topics: Statistical Machine Learning, Time Series analisys, Statistical Inference, Bayesian statistics, Probability.

Thesis: Semi-Supervised Irregular heartbeats detection using Deep Generative modelling.

Implemented a novel model derived from an Adversarial AutoEncoder (in Pytorch CUDA), capable of detecting irregularities in ECG signals by modelling its normal behaviour(**0.95 ROC-AUC** on MIT-BIH data **comparable with State-of-Art**).

Bachelor in Computer Engineering, Politecnico of Turin: 104/110   Sep 2015 - Oct 2018

Language

English – Proficient User   **Italian** – Native User   **French** – Beginner