MATTEO MERLO

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ABOUT ME

Aspiring Machine Learning Engineer with a background in software engineering. After my Bachelor's degree, I pivoted my career to Machine Learning due to my passion for Artificial Intelligence and problem-solving attitude. Currently looking for an internship in ML/DL field with the possibility to discuss my final M.S. thesis, to be started by Nov/Dec.

Research interest: • Machine Learning/Deep Learning • Artificial Intelligence • Computer Vision • Data Science

WORK EXPERIENCE

- **Software Engineer** Apr. 2017 - Dec. 2017
  Consoft Sistemi S.P.A *Turin, Italy*
  - *Knowledge used*: C, C++, Python, JSON, Arduino, LoRaWAN
  - Tested LoRaWAN communication protocol as solution within an IOT environment.
  - Developed a JSON-like package data format.

EDUCATION

- **MSc Degree in Data Science and Engineering**, Politecnico di Torino Sept. 2020 - Exp. Jun 2023
  Main Courses: *Data Science, Mathematics in ML, Computer Vision, ML for IoT.* Current GPA: 26/30
- **BSc Degree in Computer Engineering,** Politecnico di Torino Sept. 2014 - Jun. 2020
  Graduated with 95/110

CURRICULAR PROJECTS

- **Twitter-Sentiment-Analisys:** [Repository, Paper]
  - *Knowledge used*: Python, Scikit-Learn, NumPy, Pandas, Grid Search, Logistic Regression, SVC.
  - Sentiment analysis of a dataset of tweets through machine learning techniques.
  - Final project of Data Science course, score achieved 12/12, final accuracy above 95 percentiles of classroom.
- **Real-time Domain Adaptation in Semantic Segmentation:** [Repository, Paper]
  - *Knowledge used*: Python, **PyTorch**, Torchvision, NumPy, TensorBoard, CUDA.
  - Computer vision project image elaboration for an application in real-time for **self-driving cars**.
  - Final project of Machine Learning and Deep Learning course, final score 30/30.
- **Default of Credit Card Clients Dataset Analisys:** [Repository, Paper]
  - *Knowledge used*: Python, Scikit-Learn, Pandas, SMOTE, PCA, SVM, Random Forest, Logistic Regression.
  - Data analysis through advanced ML techniques such as SMOTE, PCA using SVM and Random Forest
  - Final project of Mathematics for Machine Learning course, final score 28/30.
- **Smart Home Vigilance System:** [Repository, Paper]
  - *Knowledge used*: Python, Raspberry Pi, MQTT, **Tensorflow**, Speech Recognition, OpenCV
  - An indoor video surveillance system capable of recognizing the presence of a human intrusion.
  - Final project course of Machine Learning for IOT course, score achieved 17/18.

EXTRACURRICULAR EXPERIENCE

- **IT division member** Oct. 2016 - Jul. 2020
  Icarus Polito students team [Project]
  Icarus is a students team working on UAV airplane design and rocket.
  - *Knowledge used*: C, C++, C#, Java, Arduino, STM32 Nucleo, Matlab, GRIB2, Weather API
  - Designed and built a UAV and rocket ground control station.
  - Designed from scratch a flight route path planner through clouds using graph algorithms.

SKILLS SUMMARY AND CERTIFICATES

- **Human Languages**: Italian(Native), English(Advanced), German(Limited proficiency), French(Beginner)
- **Programming Languages**: Python, C, C++, C#, Java, SQL/NoSQL, R, Bash
- **Machine Learning**: Statistics, Pytorch, Tensorflow, Keras, Numpy, Pandas, Scikit-learn, Pyspark, MapReduce
- **Certificates**: **IELTS** overall band 7.0 Mar. 2016

INTEREST, HOBBIES AND VOLUNTEERING

Hobbies: Hiking, Football, Gym, Swimming, Chess.
Interest: Automotive, Space, Reading scientific journal, Travelling.
Volunteering: Musician at the Balangero's and Coassolo Torinese's band since 2006, AVIS blood donor.