MATTEO MERLO

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KEY STRENGHTS

I am a dynamic, motivated and flexible person. Eager to learn, I love facing new challenges and getting involved in new experiences. I am also optimistic and proactive in dealing with problems, but also pragmatic and realistic in analyzing facts. I'm a tech enthusiast. I approached computer science, then I pursued my passion for automation and artificial intelligence, aspiring to be a ML/DL Engineer. I love working in a dynamic and multicultural environment.
Research interest: • Machine Learning & Deep Learning • Artificial Intelligence • Computer Vision • Data Science

WORK EXPERIENCE

- **Software engineer junior consultant** Apr. 2017 - Dec. 2017
  Consoft Sistemi S.P.A *Turin, Italy*
  - *Technologies used*: C, C++, Python, JSON, Arduino, LoRaWAN
  - Implemented ad-hoc mobility library on specific designed smartwatch for elderly person.
  - 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. Dec. 2022
  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]
  - *Technologies used*: Python, Scikit-Learn, Numpy, Pandas, Grid Search, various classification algorithm.
  - 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]
  - *Technologies used*: Python, PyTorch, Torchvision, Numpy, TensorBoard.
  - Computer vision project in **semantic segmentation** of images from a virtual environment and subsequent **domain adaptation** in real world 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 in progress, Paper in progress]
  - *Technologies used*: Python, Scikit-Learn, Pandas, Grid Search, SMOTE, PCA, AdaBoost, Random Forest.
  - Data analysis through advanced ML techniques such as SMOTE, PCA using SVM and Random Forest

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.
  - *Technologies 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.
  - Designed a real-time control status GUI with MatLab App Designer.

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
- **Platforms**: Linux, Windows, Arduino, Raspberry, Colab, Google cloud
- **Soft Skills**: Team building, Proactivity, Flexibility, Patience, Open-mindedness, Critical thinking, Problem-solving
- **Certificates**: **IELTS** overall band 6.0 Mar. 2016

INTEREST, HOBBIES AND VOLUNTEERING

Hobbies: Hiking, Swimming, Chess, Boardgames
Interest: Space, Motor sports, Travelling, Reading scientific papers
Volunteering: Musician at the Balangero's and Coassolo Torinese's band since 2006