



Manuele Macchia

Via Salvo d'Acquisto, 25 – 71122 Foggia, Italy
Born in Foggia, Italy on 25/05/1996

macchiamanuele@gmail.com manuelemacchia.com
+39 334 2931307 github.com/manuelemacchia

Profile

I am a second-year MSc student in data science and engineering with a background in computer science. Interested in natural language processing, computer vision, data engineering, big data analytics and explainable AI. Capable of working in a team to solve challenging problems and open to multicultural environments. Detail-oriented, analytical mindset and creative spirit.

Skills

Programming Python, MATLAB, Java, R, Git

Database SQL, MongoDB

Data analysis & machine learning
scikit-learn, pandas, NumPy, NetworkX, SciPy, PySpark, Hadoop

Deep learning TensorFlow, PyTorch

Web HTML5, CSS, JavaScript, Hugo

Languages

Italian (mother tongue)
English (fluent, FCE Grade A, CEFR C1, June 2013)
Spanish (basic)

Associations

MALTO

November 2020 – Present

Founding member

- Student team with the goal to take part in international data science competitions, achieving high performance on machine learning problems and proposing cutting-edge approaches.
- Participating to ACM Twitter RecSys Challenge 2021, developing a recommender system.
- Set up an internal wiki for sharing knowledge among team members.

Interests

Guitar, Digital graphics.

Education

Politecnico di Torino

October 2019 – Present · Turin, Italy

Master of Science in Data Science and Engineering

Current average grade: 28.8/30.

Courses: Machine learning and Deep learning, Distributed architectures for big data processing and analytics, Statistical Methods in Data Science, Data Ethics and Protection.

Politecnico di Bari

September 2015 – October 2019 · Bari, Italy

Bachelor of Science in Computer Science and Automation Engineering

Information systems and applications track. Final grade: 107/110.

Universidad de Las Palmas de Gran Canaria

January – June 2018 · Las Palmas, Spain

Erasmus+ programme, Degree in Computer Engineering

Liceo Scientifico A. Volta

September 2010 – July 2015 · Foggia, Italy

High School Diploma in Scientific Studies

Main subjects: Mathematics, Physics, Philosophy. Final grade: 80/100.

Experience

AIKO: Autonomous Space Missions

March – May 2021 · Turin, Italy

Deep Learning Intern

- Replicated state-of-the-art performance of Temporal Fusion Transformer for multi-horizon time series forecasting.
- Set up a pipeline to evaluate and visually explain model predictions.
- Reduced baseline model weight by 90% while retaining a comparable normalized quantile loss on hold-out set.
- Adapted model to forecast proprietary satellite sensor measurements, achieving 0.027 p50 risk on test data.

Projects

Incremental learning in image classification

[Paper](#) · [Code](#)

May – July 2020

- Implemented incremental learning baselines from scratch in PyTorch.
- Designed and implemented experiments to study the effect of variations to state-of-the-art approaches, obtaining +1.2% average incremental accuracy with respect to the baseline.
- Identified and developed novel approaches to overcome limitations of baselines.

Sentiment analysis of hotel reviews

[Article](#) · [Code](#)

December 2019 – February 2020

- Analyzed, cleaned and processed a natural language dataset of hotel reviews in Italian scraped from TripAdvisor.
- Developed a machine learning pipeline to predict the sentiment contained in unseen reviews with high accuracy (96.4% F1-score).