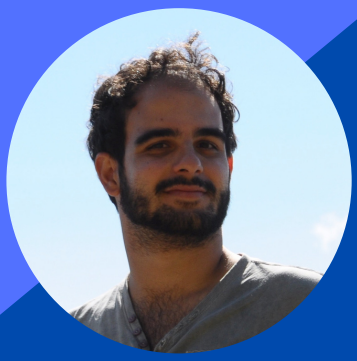

LORENZO MADEDDU

DATA SCIENTIST

CONTACT ME AT

lorenzo.madeddu@gmail.com

www.aiim.disim.univaq.it/people?pk=2

@lmadeddu

SKILLS SUMMARY

SOFT	HARD
Empathy	Italian, native proficiency
Enthusiasm	English, working proficiency
Ambition	Multidisciplinarity
Problem Solving	Research
Focus	Data & Bioinformatic analysys
Networking	Machine learning (link)
Teamwork	Working in medical context
Self-improvement	Computer programming

PROGRAMMING SKILLS

Python, Java, SQL, Numpy, Pandas, Sklearn, Keras, Pytorch, Weka, Data structures

SELECTED PUBLICATIONS

- A feature-learning-based method for the disease-gene prediction problem (2020, IJDMB)
- Integrating categorical and structural proximity in Disease Ontologies* (Nov 2021, EMBC)
- Deep Graph Networks for Drug Repurposing with Multi-Protein Targets. (2021, Submitted)
- Find more here (link)

BOOKS

- Deep Learning methods in Network Biology. Book Chapter in Deep Learning in Biology and Medicine (Nov 2021, World Sci)
- AIM in Genomics: Ontological and connectivity structure of disease-gene modules in the human interactome. (2021, Springer Nature)

AWARDS

- Winner of the "Enabling Sustainable Cities though blockchain challenge" (2019, WomENcourage)

PERSONAL PROFILE

I am a computer scientist with knowledge of machine learning and bioinformatics. I am also experienced in research and multidisciplinarity.

WORK EXPERIENCE

Research Scientist (PhD)
IIM — Nov 2018 - Nov 2021 (expected)|

- Developed RW2, a novel machine learning model for graph-mining tasks.
- Developed a machine learning method for analyzing diseases molecular mechanisms

Visiting Research (PhD)
Loscalzo Lab, Brigham and Women's Hospital, Harvard Medical School — Jun 2021 - Sept 2021|

- Worked on a Covid-19 drug repurposing project using Network Pharmacology and Machine Learning strategies.

Member of AI task-force on COVID-19
CLAIRE — 2020|

- Released a public Bioinformatics Covid-19 Dataset for drug-repurposing tasks (link)
- Developed a drug repurposing deep learning model for Covid-19

Protein-Protein Interactions Prediction Challenge
INMFC — Nov 2020 - Sept 2021|

- Assisted in the organization of a challenge between research teams

SCHOLARSHIPS

Research Scholarship
"Sapienza" University of Rome — 2019|

- Wrote a survey of Machine Learning algorithms for topic clustering.

Teaching Scholarship
"Sapienza" University of Rome — 2018|

- Python Teaching Assistant.

Scholarship
"Sapienza" University of Rome — 2017|

- Developed a software for social information extraction and analysis

EDUCATIONAL HISTORY

PhD in Innovative Biomedical Technologies in Clinical Medicine
"Sapienza" University of Rome — Nov 2018 - Nov 2021 (expected)|

- Research Fields: Machine Learning, Graph-Mining, Data-Mining.
- Areas of Application: Network Biology, Network Pharmacology.

MSc, Computer Science
"Sapienza" University of Rome — Oct 2016 - Oct 2018|

- Grade: 110/110, with honors
- Machine Learning, Deep Learning and Big Data analytics

BSc, Computer Science
"Sapienza" University of Rome — Sep 2013 - Oct 2016|

- Grade: 108/110
- Thesis in network analysis using Big Data techniques