Giovanni Madeo

Date of birth: 12/07/1994 | **Nationality:** Italian | **Gender** Male | (+39) 00000000000 | giovanni.madeo3@unibo.it |

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About me: I am a PhD student currently enrolled in the second year of Biotechnological, Biocomputational, Pharmaceutical and Pharmacological Sciences at the University of Bologna, supervised by Prof. Pier Luigi Martelli, Associate Professor and Director of Second Cycle Degree of Bioinformatics. My scholarship is provided by the region Emilia-Romagna, in the context of the training projects for the "Human Resources for a Digital Economy: Big Data". Therefore, my research goal is the development of innovative methods for the "Omics" Big Data analysis. I have a background in the field of Biological Sciences and Biotechnology, acquired during my bachelor's degree, combined with an in-depth knowledge of computational biology methods provided by the Master's Degree in Bioinformatics.

EDUCATION AND TRAINING

2018 – CURRENT

PHD IN BIOTECHNOLOGICAL, BIOCOMPUTATIONAL, PHARMACEUTICAL AND PHARMACOLOGICAL SCIENCES – University of Bologna

Scholarship: provided by the training projects of the region Emilia-Romagna, in the context of the theme "Human Resources for a Digital Economy: Big Data"
Tutor: Prof. Pier Luigi Martelli, Associate Professor and Director of Second Cycle Degree of Bioinformatics
Workplace: Biocomputing Group (Via San Giacomo, 9/2 Bologna (BO), Italy)
Project: Development of Innovative Methods for "Omics" Big Data Analysis
In the context of my research project, I am currently working on a Deep Learning-based method for outer membrane proteins detection and topology prediction in Gram-negative bacteria.

2016 – 2018 – Bologna, Italy

MASTER'S DEGREE IN BIOINFORMATICS – University of Bologna

- Computational Biology
- Genomics and Proteomics
- Programming for Bioinformatics
- Algorithm and Data Structures
- Phylogenetics

110/110 cum laude | Improving Transmembrane Beta-Barrels Topology Prediction with Deep Learning

2013 – 2016

BACHELOR'S DEGREE IN BIOLOGICAL SCIENCES AND TECHNOLOGIES – University of Calabria

- Molecular Biology
- Biochemistry
- Genetics
- Biostatistics
- Physiology
- Laboratory Techniques

110/110 | L'Epigenetica del Disturbo Bipolare

LANGUAGE SKILLS

Mother tongue(s): ITALIAN

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	B2	B2	B2	B2	B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

CONFERENCES AND SEMINARS

13/07/2020 – 16/07/2020 – Virtual
ISMB 2020 - 28th conference on Intelligent Systems for Molecular Biology

17/02/2020 – 21/02/2020 – Bologna
21th Bologna Winter School: "What We Can Learn From Protein Structures?"

24/06/2019 – 28/06/2019 – Bologna
Summer School: "Chemical And Genomics Based Strategies In The Discovery Of Novel Drug Targets"

18/02/2019 – 22/02/2019 – Bologna
20th Bologna Winter School: "Data Science for Bioinformatics"

12/02/2018 – 17/02/2018 – Bologna
19th Bologna Winter School: "Big Data and Bioinformatics"

04/09/2017 – 08/09/2017 – CRO, Aviano (PN)
Special Course on NGS Data Analysis

13/02/2017 – 17/02/2017 – Bologna
18th Bologna Winter School: "Revisiting Bioinformatics Foundations"

INTERNATIONAL EXPERIENCES

01/2016 – 06/2016
Erasmus+

During the third year of my Bachelor's Degree, I spent six months studying at the University of Cardiff (UK) as part of the Erasmus+ project, where I successfully passed three exams, namely:

- Plant Development and Physiology
- Genomics, Proteomics and Bioinformatics
- Genetic Models of Disease

SKILLS

Job-related Skills

- I have a good knowledge of Python and R programming languages.
- I am familiar with all major databases and resources available for structural and functional annotation and able to extract and integrate information from them.
- I can perform sequence and structural alignments, homology modeling and building of Hidden Markov Models from multiple sequence alignments.
- I am able to develop methods based on Deep Learning (Long Short-Term Memory, Convolutional Neural Network) or other Machine Learning approaches (Support Vector Machine), as well as statistical models (Hidden Markov Model, Conditional Random Field).