Marco Anteghini, PhD

Contact
Via Domenico Zampieri 28, 40129, Bologna, Italy
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marcoanteghini@gmail.com

Links
LinkedIn
GitHub
Bioinform
Google Scholar

Languages
Italian: Mother tongue
English: C1
German:A2

Skills and Technologies
Programming
Python, Bash, SQL, R, LaTeX
Tools
Scikit-learn, TensorFlow, PyTorch, Git, Docker

Data Science
Machine Learning, Deep Learning, Statistical Analysis, Data Visualization
AI for Bioinformatics
Protein sequence embeddings, Mutation analysis, NGS pipelines

Other skills
- Statistical analysis
- Scientific writing
- Grant writing
- AI for Data Science
- NGS data analysis

Awards / Grants
Marie Skłodowska-Curie ITN (H2020-MSCA-ITN-2018)
LifeGlimmer, Sep 2019

Erasmus+ Study grant (2018-1-IT02-KA103-047045)
University of Bologna, Mar 2018

Experienced AI-focused data scientist with a proven ability to translate complex datasets into actionable insights, both as an independent freelancer and within multidisciplinary teams. Skilled at leveraging cutting-edge machine learning and deep learning methods, such as AI-driven embeddings, to tackle diverse challenges across sectors, from bioinformatics to emerging industry applications. Adept at navigating academic and corporate environments, I bring both a strong theoretical foundation and hands-on project expertise that drive tangible results.

Education

2019-2023 — **PhD** in Bioinformatics — Wageningen University and Research
Thesis: Revealing function, interactions, and localization of peroxisomal proteins using Deep Learning-based approaches

2017-2019 — **M.Sc.** in Bioinformatics — University of Bologna
Thesis: Building MSMs and HMMs from MD data of the A-β40

2013-2017 — **B.Sc.** in Biological sciences — University of Ferrara
Thesis: Dietary indications for triathletes

Freelance Collaboration

Oct 2023-ongoing — **NGB Genetics** — Bologna, Italy - Hybrid
Bioinformatician
Developing advanced bioinformatics pipelines for the analysis of nutrigenomic and microbiota data. My role involves designing and implementing efficient workflows to process and interpret complex biological datasets, leveraging AI methodologies to drive innovative research in personalized nutrition and gut microbiome health. This work entails close collaboration with interdisciplinary teams to translate data-driven insights into actionable health and dietary recommendations.

May 2024-ongoing — **LifeGlimmer GmbH** — Berlin, Germany - Remote
Bioinformatician and Operational Manager
Leading bioinformatics research in Decision Support Systems and AI, driving innovations in data analysis and predictive modeling. Assisting in the coordination of European projects, managing cross-functional teams, and overseeing project logistics and compliance. Contributing to research initiatives and grant proposals and optimizing operational processes.

July 2024-ongoing — **CliCon srl** — Bologna, Italy - Hybrid
Data Scientist
As a member of the data management group, I focus on filtering, standardizing, and analyzing administrative healthcare data sourced from local health institutions (SQL). This involves ensuring data integrity, optimizing workflows for efficient data handling, and employing advanced analytics to derive actionable insights.

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Interests

Professional
Co-founder of "Bioinform", an NGO that organise training schools in bioinformatics and AI.

Personal
Sport (Triathlon and Hiking)
Music (guitar player and singer)

References

Prof. Dr Conrad Tim
(PI and employer at Z.I.B)
Department of Visual and Data-Centric Computing, Zuse Institute Berlin,
Takustraße 7
14195 Berlin, Germany
conrad@zib.de

Prof.dr.ir. VM. dos Santos
(PhD supervisor and employer)
WUR University,
System and Synthetic Biology,
6708 WE Wageningen, The Netherlands
vitor.martinsdossantos@wur.nl

Collaboration as Employee

May 2024-ongoing **University of Bologna** Bologna, Italy - Hybrid
Postdoc - Bioinformatician Working in the Biofold Unit at the Department of Pharmacy and Biotechnology (FABIT), I apply advanced AI methods to biological sequences to predict the impact of mutations on protein stability, function, and localization. This research is particularly focused on understanding how these mutations influence human health, with an emphasis on neurodevelopmental rare diseases. Through these projects, I contribute to unraveling the molecular basis of disease and identifying potential avenues for therapeutic intervention.

Dec 2022-Sep 2023 **Zuse Institut Berlin** Berlin, Germany
Postdoc - Bioinformatician Working in the Biofold Unit at the Department of Pharmacy and Biotechnology (FABIT), I apply advanced AI methods to biological sequences to predict the impact of mutations on protein stability, function, and localization. This research is particularly focused on understanding how these mutations influence human health, with an emphasis on neurodevelopmental rare diseases.

Oct 2019-Sep 2023 **LifeGlimmer GmbH** Berlin, Germany
PhD Student and Employee in association with the System and Synthetic Biology Group, Wageningen University, The Netherlands.
This project was part of an Innovative Training Network funded by the Marie Skłodowska-Curie Actions. In this industrial setting, I had the opportunity to develop projects both independently and in teams, interact with customers and stakeholders, and develop transversal skills and competencies such as familiarity with proposal writing and experience in business development. Moreover, the main research topic of my PhD was to explore the flexibility and applicability of deep learning-based protein sequence embedding in performing various prediction tasks.

Other experience

2020-ongoing **NVO Bioinformatika - Bioinform** Herceg Novi, Montenegro
Co-founder of NVO Bioinformatika - Bioinform
Trainer in bioinformatics. President and co-administrator of the NGO.

2012-2018 **C.U.S. Salvataggio** Comacchio (FE), Italy
Lifeguard
Rescuer and supervisor for the safety of swimmers at the seaside.

2010-2012 **PCompany** Comacchio (FE), Italy
Lifeguard
Rescuer and supervisor for the safety of swimmers in private swimming pools and swimming pool maintenance technician.