

# Marco Manolo Manca

## *Curriculum vitae*

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### Personal Details

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Date of Birth

Nationality

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### Education

- October 2019 **Phd in Computer Science, University of Cagliari,**  
- in progress My current research interest is machine learning applied to smart energy systems.
- October 2015 **Master Degree in Mathematics, University of Cagliari,**  
- October 2019 Thesis: "Bayesian tree regression models".
- October 2010 **Bachelor Degree in Mathematics, University of Cagliari,**  
- November 2015 Thesis: "Lipschitzianity and other properties of convex functions".

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### Publications

- October 2022 **Appliance Recognition with Combined Single- and Multi-label Approaches, M. M. Manca, A. Faustine, L. Pereira,** 6th International Workshop on Non-Intrusive Load Monitoring / ACM International Conference on Systems for Energy-Efficient Built Environments, Boston.  
<https://doi.org/10.1145/3563357.3566153>
- October 2022 **Deep learning based non-intrusive load monitoring with low resolution data from smart meters, M. M. Manca, L. Massidda,** Communications in Applied and Industrial Mathematics, vol. 13, SIMAI.  
<https://doi.org/10.2478/caim-2022-0004>
- June 2022 **Exploiting Feature Selection in Human Activity Recognition: Methodological Insights and Empirical Results Using Mobile Sensor Data, M. M. Manca, B. Pes, D. Riboni,** IEEE Access, vol. 10, pp. 64043-64058.  
<https://doi.org/10.1109/ACCESS.2022.3183228>
- January 2022 **Towards Context-aware Power Forecasting in Smart-homes, E. Cuncu, M. M. Manca, B. Pes, D. Riboni,** Procedia Computer Science, 12th International Conference on Emerging Ubiquitous Systems and Pervasive Networks / 11th International Conference on Current and Future Trends of Information and Communication Technologies in Healthcare.  
<https://doi.org/10.1016/j.procs.2021.12.235>

March 2020 **Toward a brain-controlled prosthetic arm through advanced machine learning methods**, *S. M. Massa, M. M. Manca*, A CORE ranking 2018: "Smarphil: 1st workshop on Smart Personal Health Interfaces", Cagliari.  
<https://ceur-ws.org/Vol-2596/paper4.pdf>

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## Abroad Experiences

March 2022 - August 2022 **Visiting PhD student**, *Interactive Technologies Institute*, Lisbon, I spent six months at the Interactive Technologies Institute in Lisbon under the supervision of Prof. Lucas Pereira working on Non-Intrusive-Load-Monitoring field.

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## Courses Attended

June-July 2021 **Deep Learning: a hands-on introduction 2021**, *Prof. Nicoletta Noceti*, MaLGa - University of Genoa.  
June 2021 **Regularization Methods for Machine Learning 2021**, *Prof. Lorenzo Rosasco*, MaLGa - University of Genoa.  
June 2020 **Regularization of ill-posed linear inverse problems**, *Prof. Alessandro Buccini*, University of Cagliari.  
July 2020 **3rd Advanced Course on Data Science & Machine Learning**, *University of Siena*, Certosa di Pontignano.  
December 2020 **Python for Machine Learning Research**, *Prof. Mirko Marras*, University of Cagliari.  
March 2021 **Introduction to Finite Mixture Models and Latent Class Analysis**, *Prof.ssa Silvia Columbu*, University of Cagliari.

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## Teaching Experience

October 2020-February 2021 **Tutor for the course Mathematical Analysis 1**, *Bachelor Degree Program in Computer Science*, University of Cagliari.  
January-May 2020 **Tutor for the course Mathematical Analysis 1**, *Bachelor Degree Program in Engineering*, University of Cagliari.  
October 2017-February 2018 **Tutor for the course Mathematical Analysis 1**, *Bachelor Degree Program in Mathematics*, University of Cagliari.  
October 2017-February 2018 **Tutor for the course Mathematical Analysis 1**, *Bachelor Degree Program in Physics*, University of Cagliari.

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## Languages skills

Italian Native speaker  
English Level B2

## Computer science knowledge

Operative Systems	Windows
Programming Languages	C++ (basic level), Python (intermediate level), R (intermediate level)
Software	Matlab
Typography	L <sup>A</sup> T <sub>E</sub> X

December 21, 2022