

# Federico Baldo

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Viale del Risorgimento 2, 40136, Bologna (BO)



*Federico Baldo was born on November 22, 1994, in Cividale Del Friuli*

## EDUCATION

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- PhD - Computer Science and Engineering** *November 2020 - October 2023*  
University of Bologna - Department of Computer Science and Engineering
- Master's degree in Computer Science** *September 2016 - July 2019*  
University of Padova - Department of Computer Science  
*Deep Learning for Probability Estimation in Optimization Problems*
- Bachelor's degree in Computer Science** *September 2013 - December 2016*  
University of Udine - Department of Computer Science

## ACADEMIC ACTIVITIES

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- Visiting Period** *September 2022 - March 2023*  
Institut Pierre Louis d'Epidmiologie et de Sant Publique (France)  
*Transfer Informed Deep Learning for Epidemics Forecasting*
- Academic tutor for the course of Informatics' Foundation** *March 2020 - June 2022*  
University of Bologna  
Automation Engineering and Computer Engineering
- Fellow Researcher** *October 2019 - October 2020*  
University of Bologna - Department of Computer Science and Engineering  
*Advancements in Empirical Model Learning With Application on Transprecision Computing*

## WORK EXPERIENCE

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- Python Developer & Project Specialist** *January 2016 - January 2017*  
Infolab iRecovery Group Srl (Verona)  
*Sentiment Analysis for Social Media Management*

## TECHNICAL SKILLS

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|-----------------------------------|--|
| <b>Programming Languages</b>      | Python, C, Java, Haskell                 |
| <b>Machine Learning Libraries</b> | Tensorflow, Keras, Pytorch               |
| <b>Optimization Tools</b>         | OR-Tools, IBM ILOG CPLEX                 |
| <b>Other Skills</b>               | LaTeX, Google App Engine, ITILv3 (basic) |

## LANGUAGES

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**Italian** Native language  
**English** Advanced (C1) - *self-assessed*  
**Spanish** Basic (A2) - *self-assessed*

## CONFERENCE PUBLICATIONS

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**An analysis of Universal Differential Equations for data-driven discovery of Ordinary Differential Equations**

Mattia Silvestri, Federico Baldo, Eleonora Misino and Michele Lombardi  
*ICCS 2023*

**Informed Deep Learning for Epidemics Forecasting**

Federico Baldo, Michele Iannello, Michele Lombardi, Michela Milano  
*PAIS 2022* - Presenting Author

**Lagrangian Duality for Constrained Deep Learning**<sup>1</sup>

Ferdinando Fioretto, Pascal Van Hentenryck, Terrence WK Mak, Cuong Tran, Federico Baldo, Michele Lombardi *ECML PKDD 2020*

**Injective Domain Knowledge in Neural Networks for Transprecision Computing**<sup>2</sup>

Andrea Borghesi, Federico Baldo, Michele Lombardi and Michela Milano  
*LOD 2020* - Presenting Author

## WORKSHOP PUBLICATIONS

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**An Analysis of Regularized Approaches for Constrained Machine Learning**<sup>3</sup>

Michele Lombardi, Federico Baldo, Andrea Borghesi, Michela Milano  
*TAILOR 2020*

**Integrating Deep Learning and Optimization for Epidemic Control**<sup>4</sup>

Federico Baldo, Andrea Borghesi, Michele Lombardi  
*IJCAI-DSO 2021* - Presenting Author

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<sup>1</sup><https://arxiv.org/abs/2001.09394>

<sup>2</sup><https://arxiv.org/abs/2002.10214>

<sup>3</sup><https://arxiv.org/pdf/2005.10674>

<sup>4</sup><https://arxiv.org/pdf/2005.10674>