

FEDERICO ERRICA

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Interested in Deep Learning for **Graphs**

EDUCATION

University of Pisa, Italy *November 2018 - February 2022*

Ph.D. *w. honors* in Computer Science

Title: **Bayesian Deep Learning for Graphs**

Supervised by Davide Bacciu and Alessio Micheli

University of Pisa, Italy *March 2018*

M.Sc. in Computer Science (110/110 Hons.)

University of Pisa, Italy *October 2015*

B.Sc. in Computer Science (110/110)

EXPERIENCE

NEC Laboratories Europe GmbH January 2022 - Present
Research Scientist *Heidelberg, DE*

University College London January 2021 - May 2021
Visiting Scholar *Virtual*

Facebook AI Research June 2019 - September 2019
Research Intern *London, UK*

Laife Reply March 2018 - October 2018
Machine Learning Researcher *Milano, IT*

SELECTED PUBLICATIONS

*Castellana, D., *Errica, F., Bacciu, D. & Micheli, A. *The Infinite Contextual Graph Markov Model* in **ICML (Equal Contribution)** (2022).

*Carta, A., *Cossu, A., *Errica, F. & Bacciu, D. *Catastrophic Forgetting in Deep Graph Networks: an Introductory Benchmark for Graph Classification* in *Graph Learning Benchmark Workshop, The Web Conference (Spotlight - Equal Contribution)* (2021).

Errica, F., Bacciu, D. & Micheli, A. *Graph Mixture Density Networks* in **ICML** (2021).

Errica, F. *et al.* A deep graph network-enhanced sampling approach to efficiently explore the space of reduced representations of proteins. **Frontiers in Molecular Biosciences** **8** (2021).

Bacciu, D., Errica, F. & Micheli, A. Probabilistic Learning on Graphs via Contextual Architectures. **Journal of Machine Learning Research** **21**. (First Author - Alphabetical Order) (2020).

Bacciu, D., Errica, F., Micheli, A. & Podda, M. A Gentle Introduction to Deep Learning for Graphs. **Neural Networks** **129**. (Equal Contribution), 203–221 (2020).

Errica, F., Podda, M., Bacciu, D. & Micheli, A. *A fair comparison of graph neural networks for graph classification* in **ICLR (Equal Contribution)** (2020).

Bacciu, D., Errica, F. & Micheli, A. *Contextual Graph Markov Model: A Deep and Generative Approach to Graph Processing* in **ICML (First Author - Alphabetical Order)** (2018).

MAIN GITHUB PROJECTS

GMDN Graph Mixture Density Networks	<i>Link</i>
PyDGN A Research Library for Deep Graph Networks	<i>Link</i>
gnn-comparison A Fair, Robust, and Reproducible comparison of Deep Graph Networks	<i>Link</i>
CGMM Contextual Graph Markov Model	<i>Link</i>

HONOURS AND AWARDS

ICLR 2022 Highlighted Reviewer Award Awarded by the Program Chairs for the reviews' quality	
HPC-Europa3 Transnational Access Project proposal selected for a visiting period at the University of Cambridge	
2nd place - Ilaria Castelli Award Best Master's Degree Thesis on Machine Learning and Pattern Recognition	<i>Link</i>
ICML 2018 Travel Award Grant by the International Machine Learning Society	

INVITED TALKS

NEC Laboratories Europe GmbH Bayesian Deep Learning for Graphs	<i>July 2021</i>
IBM Graph Representation Learning: from Neural Beginnings to Probabilistic Perspectives	<i>April 2021</i>
Continual AI Presentation about our work on Catastrophic Forgetting for Deep Graph Networks	<i>April 2021</i>

ACTIVITIES

Reviewer TNNLS, TPAMI, AI, ICML, ICLR, NeurIPS, AAAI, Neurocomputing, IJCNN, ESANN	
Co-organizer of MLDM 2022 (AIxIA) The Italian Workshop on Machine Learning and Data Mining	<i>December 2022</i> <i>Link</i>
Co-organizer of LOD22 Special Session Recent Advances in Deep Learning for Graphs	<i>September 2022</i> <i>Link</i>
Co-organizer of ESANN Special Session Complex Data: Learning Trustworthily, Automatically, and with Guarantees	<i>October 2021</i> <i>Link</i>
Teaching Assistant Machine Learning Computational Neuroscience	<i>2020-2021</i> <i>2019-2020</i>

LANGUAGES

Italian

Native Speaker

English

Cambridge C2 Proficiency (CPE) - grade B (219/230)

German

A1 Level