

FEDERICO ERRICA

✉ federico.errica@phd.unipi.it ◇ 🏠 diningphil.github.io

🎓 Scholar ◇ in federicoerrica ◇ 🐙 diningphil ◇ 🐦 federico_errica

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

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	Link
PyDGN A Research Library for Deep Graph Networks	Link
gnn-comparison A Fair, Robust, and Reproducible comparison of Deep Graph Networks	Link
CGMM Contextual Graph Markov Model	Link

HONOURS AND AWARDS

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	Link
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 LOD22 Special Session Recent Advances in Deep Learning for Graphs	<i>September 2022</i> Link
Co-organizer of ESANN Special Session Complex Data: Learning Trustworthily, Automatically, and with Guarantees	<i>October 2021</i> Link
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 Work in progress