FEDERICO ERRICA

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Interested in Deep Learning for **Graphs**

EDUCATION

University of Pisa, Italy _November 2018 - March 2022_
Ph.D. in Computer Science, **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 *Link*
Graph Mixture Density Networks

PyDGN *Link*
A Research Library for Deep Graph Networks

gnn-comparison *Link*
A Fair, Robust, and Reproducible comparison of Deep Graph Networks

CGMM *Link*
Contextual Graph Markov Model

HONOURS AND AWARDS

HPC-Europa3 Transnational Access
Project proposal selected for a visiting period at the University of Cambridge

2nd place - Ilaria Castelli Award *Link*
Best Master's Degree Thesis on Machine Learning and Pattern Recognition

ICML 2018 Travel Award
Grant by the International Machine Learning Society

INVITED TALKS

NEC Laboratories Europe GmbH *July 2021*
Bayesian Deep Learning for Graphs

IBM *April 2021*
Graph Representation Learning: from Neural Beginnings to Probabilistic Perspectives

Continual AI *April 2021*
Presentation about our work on Catastrophic Forgetting for Deep Graph Networks

ACTIVITIES

Reviewer
TNNLS, TPAMI, AI, ICML, ICLR, NeurIPS, AAAI, Neurocomputing, IJCNN, ESANN

Co-organizer of LOD22 Special Session *September 2022*
Recent Advances in Deep Learning for Graphs *Link*

Co-organizer of ESANN Special Session *October 2021*
Complex Data: Learning Trustworthily, Automatically, and with Guarantees *Link*

Teaching Assistant
Machine Learning *2020-2021*
Computational Neuroscience *2019-2020*

LANGUAGES

Italian
Native Speaker

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

German
Work in progress