FEDERICO ERRICA

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Scholar \diamond in federicoerrica \diamond \circlearrowleft diningphil \diamond \checkmark 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 Heidelberg, DE

 $Research\ Scientist$

January 2021 - May 2021

University College London 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

Errica, F. On Class Distributions Induced by Nearest Neighbor Graphs for Node Classification of Tabular Data in **NeurIPS** (2023).

Errica, F., Bacciu, D. & Micheli, A. PyDGN: a Python Library for Flexible and Reproducible Research on Deep Learning for Graphs. *Journal of Open Source Software* (2023).

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

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

Bacciu, D., Errica, F. & Micheli, A. Probabilistic Learning on Graphs via Contextual Architectures. Journal of Machine Learning Research. (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

PyDGN LinkA Research Library for Deep Graph Networks gnn-comparison LinkA Fair, Robust, and Reproducible comparison of Deep Graph Networks **GMDN** LinkGraph Mixture Density Networks Link**CGMM** Contextual Graph Markov Model

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

Link

Best Master's Degree Thesis on Machine Learning and Pattern Recognition

ICML 2018 Travel Award

Grant by the International Machine Learning Society

TALKS

ESANN 2023 October 2023 Introduction to Graph Representation Learning **NEC Laboratories Europe GmbH** July 2021 Bayesian Deep Learning for Graphs 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, TKDE, AI, ICML, ICLR, NeurIPS, AAAI, Neurocomputing, Scientific Reports, IJCNN, ESANN, ICANN

Co-organizer of Special Sessions on Deep Learning for Graphs

IJCNN 2023, ESANN 2023/2022, LOD2022.

Co-organizer of MLDM 2023/2022 (AIxIA)

The Italian Workshop on Machine Learning and Data Mining

Co-organizer of ESANN 2021 Special Session

Complex Data: Learning Trustworthily, Automatically, and with Guarantees

Teaching Assistant

Machine Learning 2020-2021 Computational Neuroscience 2019-2020

LANGUAGES

Italian

Native Speaker

English

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

German

A1 Level