

# FEDERICO ERRICA

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🎓 Scholar ◇ **in** federicoerrica ◇ 🍷 diningphil

Interested in Deep Learning for **Graphs**

## EDUCATION

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**University of Pisa, Italy**

November 2018 - Present

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

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**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

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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

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### **PyDGN**

A Research Library for Deep Graph Networks

*[Link](#)*

### **gnn-comparison**

A Fair, Robust, and Reproducible comparison of Deep Graph Networks

*[Link](#)*

### **CGMM**

The Contextual Graph Markov Model

*[Link](#)*

## HONOURS AND AWARDS

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### **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

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Bayesian Deep Learning for Graphs

### **IBM**

Graph Representation Learning: from Neural Beginnings to Probabilistic Perspectives

*April 2021*

### **Continual AI**

Presentation about our work on Catastrophic Forgetting for Deep Graph Networks

*April 2021*

## ACTIVITIES

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### **Reviewer**

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

### **Co-organizer of ESANN Special Session**

Complex Data: Learning Trustworthily, Automatically, and with Guarantees

*October 2021*

*[Link](#)*

### **Teaching Assistant**

Machine Learning

*2020-2021*

Computational Neuroscience

*2019-2020*

## LANGUAGES

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### **Italian**

Native Speaker

### **English**

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