Emanuele Rossi

EDUCATION

Imperial College London, London — *PhD in Computer Science*

OCTOBER 2020 - PRESENT

Researching graph neural networks models for dynamic graphs (graphs that change over time) and designing models which are inherently scalable to billions of edges in the graph.

University of Cambridge, Cambridge — Master in Advanced Computer Science

OCTOBER 2018 - JUNE 2019

Graduated with **Distinction** (equivalent of **4.0 GPA**) Thesis: "**Graph Deep Learning for ncRNA data**" (published at KDD 2019 workshop on Graph Deep Learning).

Imperial College London, London — Bachelor in Computer Science

OCTOBER 2015 - JUNE 2018

Graduated with First Class Honours (equivalent of 4.0 GPA).

SELECTED PUBLICATIONS

<u>TGN</u>: Temporal Graph Networks — 2020

A new theoretical generic, efficient framework for **deep learning on dynamic graphs** represented as sequences of timed events. It generalizes previous models and outperforms them on a variety of experiments.

<u>SIGN</u>: Scalable Inception Graph Neural Networks — 2020

Efficient and scalable graph deep learning architecture which sidesteps the need for graph sampling by using graph convolutional filters of different size that are amenable to efficient precomputation, allowing extremely fast training and inference. It obtains state-of-the-art results on the largest node-wise classification task with over 100M nodes.

PERSONAL PROJECTS

LeadTheFuture — 2017–present

Co-Founder of LeadTheFuture, a non-profit organization which provides **free mentorship to over 100 Italian students in STEM** both from high-school and from university.

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Linkedin: https://www.linkedin.com/in/emanuele-rossi/

Website: https://www.emanuelerossi.co.uk/

WORK EXPERIENCE

Twitter, London — *Machine Learning Researcher*

MARCH 2019 - IUNE 2019

Working on **applied** and **fundamental research** around **graph neural networks**. **Scaling** these technologies to graphs with millions of nodes and hundred of billions of edges. *Python*, *TensorFlow*, *Pytorch*

UCLA, Los Angeles — Visiting Researcher

MAY 2019 - JUNE 2019

Visiting researcher as part of <u>IPAM long program on learning</u> <u>from geometric data</u>. Worked on graph neural networks. *Python*, *Pytorch*

Fabula AI, London — Data Scientist

MARCH 2019 - JUNE 2019

Researched and developed **novel geometric deep learning models** for **fake news classification**. Fabula AI has been acquired by Twitter in June 2019. *Python, TensorFlow*

Imperial College London, London — Research Intern

APRIL - SEPTEMBER 2018

Worked under the supervision of **Prof. Michael Bronstein** on **Graph Convolutional Networks**, focusing on the task of predicting tweets virality. *Python*, *TensorFlow*

Google, Mountain View — Software Engineering Intern

JULY - OCTOBER 2017

Worked in the **Google Play Store** infrastructure team. *Java*, *ProtoBuf*, *BigQuery*

AWARDS AND ACHIEVEMENTS

Bronze medal at Informatics Olympiads

SEPTEMBER 2014

Won a bronze medal (ranked 19th overall) at the **Italian Olympiad in Informatics** (OII), a programming competition with a high focus on algorithms where each year approximately 13,000 students compete against each other.

Member of the winning team of the Italian Olympiads in Informatics for teams

APRIL 2014

Captain of the 5 membered team which **ranked 1**st among all participating high schools in the country.