

Education

University of Oxford <i>PhD/DPhil Student in Computer Science, advised by prof. Marta Z. Kwiatkowska</i>	Oct. 2019 – Present Oxford, UK
Polytechnic University of Milan <i>Master's Degree in Computer Science and Engineering</i>	Feb. 2015 – Sept. 2017 Milan, Italy
Polytechnic University of Milan <i>Bachelor's Degree in Computer Engineering</i>	Sept. 2011 – Sept. 2014 Milan, Italy

Work Experience

Research Assistant <i>Enabling rapid adoption of artificial intelligence through an anonymized data protocol and explainable models.</i> <ul style="list-style-type: none">• Collaboration with GenieAI.• Funded through the InnovateUK scheme.• The collaboration led to a paper published at EMNLP'20.	Oct. 2019 – Mar. 2021 University of Oxford, UK
Consultant <i>Consultant – IBM architect path –</i> <ul style="list-style-type: none">• Design, development and deploy of a search engine for a public financial institution.• Design, development and deploy of a cloud document management system for a public financial institution.	Mar. 2018 – Aug. 2019 IBM, Milan, Italy

Publications

NLP and Linguistics

- Emergent Linguistic Structures in Neural Networks are Fragile**
Under review (long paper)
Emanuele La Malfa*, Matthew Wicker, Marta Kwiatkowska
- The King is Naked: on the Notion of Robustness for Natural Language Processing**
AAAI'22 (long paper, main track) (**oral presentation**)
Emanuele La Malfa*, Marta Kwiatkowska
- On Guaranteed Optimal Robust Explanations for NLP Models**
IJCAI'21 (long paper, main track)
Emanuele La Malfa*, Rhiannon Michelmore, Agnieszka Zbrzeny, Nicola Paoletti, Marta Kwiatkowska
- Assessing Robustness of Text Classification through Maximal Safe Radius Computation**
EMNLP'20 (long paper)
Emanuele La Malfa*, Min Wu, Luca Laurenti, Benjie Wang, Anthony Hartshorn, Marta Kwiatkowska

Complex Networks Theory and Deep Learning

- Deep Neural Networks as Complex Networks**
Under review (long paper)
Emanuele La Malfa*, Gabriele La Malfa*, Claudio Caprioli, Giuseppe Nicosia, Vito Latora
- Characterizing Learning Dynamics of Deep Neural Networks via Complex Networks**
IEEE-ICTAI'21 (long paper, main track)
Emanuele La Malfa*, Gabriele La Malfa*, Giuseppe Nicosia, Vito Latora

Teaching Experience

Ethical Computing in Practice <i>Practical sessions</i>	2023 (HT) University of Oxford, UK
Deep Learning in Healthcare <i>Practical sessions</i>	2023 (HT) University of Oxford, UK
Probabilistic Model Checking <i>Practical sessions</i>	2022 (MT) University of Oxford, UK
Machine Learning <i>Classes</i>	2021 (MT) University of Oxford, UK
Probabilistic Model Checking <i>Practical sessions</i>	2021 (MT) University of Oxford, UK
Fundamentals of Computer Science <i>Practical sessions</i>	2016 (Oct.-Dec.) Polytechnic University of Milan, Italy

Invited Lectures, Talks and Presentations

On Robustness for Natural Language Processing	19/04/2023
<i>Group Talk</i>	<i>ICREA, Barcelona</i>
On the Notion of Robustness for Natural Language Processing	17/01/2023
<i>Departmental Talk</i>	<i>King's College University of London, UK</i>
Robustness for Natural Language Processing	22/04/2022
<i>Lecture – Deep Fridays</i>	<i>University of Bologna, Italy</i>
Explainable AI	04/03/2022
<i>Lecture – Advanced Artificial Intelligence Course</i>	<i>Royal Holloway University of London, UK</i>

Tutoring and Mentoring

University of Oxford	2022
<i>Tutoring of a master's student (thesis).</i>	
Lead the Future - Mentor	2022
<i>Lead the Future is a no-profit organization that helps Italian talents in STEM disciplines to find their path to brilliant careers.</i>	

Miscellaneous

Programming Languages: Python (fluent), worked with many languages/tools as part of my profession (C, js, ...)
Languages: Italian (native), English (fluent), Spanish (intermediate)
Conference Chair: LOD2020, LOD2021, LOD2022
Interests: Books (any kind, any topic)

Volunteering

The Kharkiv and Przemyśl Project	August 2022
<i>I spent a week in Przemyśl (Poland) as a volunteer to help refugees who arrived (returned) from (to) Ukraine.</i>	
Ukrainian Global University - Interviewer	June-May 2022
<i>I interviewed a dozen of perspective undergraduate Ukrainian students who want to study in a partner university abroad.</i>	
Euthanasia Legale - Volunteer	July 2021
<i>I have collected signatures for a referendum to decriminalize euthanasia. The overall campaign gathered 1.2 million valid signatures.</i>	

Awards and Scholarships

Trinity College Graduate Scholarship	2020-21, 2021-2022
	<i>Trinity College, University of Oxford, UK</i>