

Emanuele La Malfa

cs.ox.ac.uk/people/emanuele.lamalfa/

Education

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| 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

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| 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

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| 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

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| 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

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| 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 the Notion of Robustness for Natural Language Processing

17/01/2023

Departmental Talk

King's College University of London, UK

Robustness for Natural Language Processing

22/04/2022

Lecture – Deep Fridays

University of Bologna, Italy

Explainable AI

04/03/2022

Lecture – Advanced Artificial Intelligence Course

Royal Holloway University of London, UK

Tutoring and Mentoring

University of Oxford

2022

Tutoring of a student who I followed with his master's thesis.

Lead the Future - Mentor

2022

Lead the Future is a no-profit organization that helps Italian talents in STEM disciplines to find their path to brilliant careers.

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 spent a week in Przemyśl (Poland) as a volunteer to help refugees who arrived (returned) from (to) Ukraine.

Ukrainian Global University - Interviewer

June-May 2022

I interviewed a dozen of perspective undergraduate Ukrainian students who want to study in a partner university abroad.

Eutanasia Legale - Volunteer

July 2021

I have collected signatures for a referendum to decriminalize euthanasia. The overall campaign gathered 1.2 million valid signatures.

Awards and Scholarships

Trinity College Graduate Scholarship

2020-21, 2021-2022

Trinity College, University of Oxford, UK