
Work Experience

Post Doctoral Researcher

Benchmarking Large Language Models.

- Principal Investigator: Prof. [Michael Woolridge](#).

Jul. 2023 – Current
University of Oxford & The Alan Turing Institute, UK

Research Assistant

Enabling rapid adoption of artificial intelligence through an anonymized data protocol and explainable models.

- Principal Investigator: Prof. [Marta Kwiatkowska](#).
- Collaboration with [GenieAI](#) and funded through the [InnovateUK](#) scheme.
- The collaboration led to a paper published at [EMNLP'20](#).

Oct. 2019 – Mar. 2021
University of Oxford, UK

Consultant

IBM, Global Business Unit

- 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

Education

University of Oxford

PhD (DPhil) in Computer Science, supervised by Prof. [Marta Kwiatkowska](#)

Oct. 2019 – 2023
Oxford, UK

Polytechnic University of Milan

Master's Degree in Computer Science and Engineering

Feb. 2015 – Sept. 2017
Milan, Italy

Polytechnic University of Milan

Bachelor's Degree in Computer Engineering

Sept. 2011 – Sept. 2014
Milan, Italy

Publications

NLP and Linguistics

Treatment-response Robustness with Unreliable Text Generators

Under review (long paper)

Emanuele La Malfa*, Christoph Weinhuber

Language Models Tokenizers Introduce Unfairness Between Languages

Under review (long paper)

Aleksandar Petrov*, Emanuele La Malfa, Philip Torr, Adel Bibi

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

Pre-print (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

Practical sessions

2023 (HT)
University of Oxford, UK

Deep Learning in Healthcare

Practical sessions

2023 (HT)
University of Oxford, UK

Probabilistic Model Checking

Practical sessions

2022 (MT)
University of Oxford, UK

Machine Learning

Classes

2021 (MT)
University of Oxford, UK

Probabilistic Model Checking

Practical sessions

2021 (MT)
University of Oxford, UK

Fundamentals of Computer Science

Practical sessions

2016 (Oct.-Dec.)
Polytechnic University of Milan, Italy

Invited Lectures, Talks, and Presentations

On Robustness for Natural Language Processing

Group Talk

19/04/2023

ICREA, Barcelona

On the Notion of Robustness for Natural Language Processing

Departmental Talk

17/01/2023

King's College University of London, UK

Robustness for Natural Language Processing

Lecture – *Deep Fridays*

22/04/2022

University of Bologna, Italy

Explainable AI

Lecture – Advanced Artificial Intelligence Course

04/03/2022

Royal Holloway University of London, UK

Tutoring and Mentoring

University of Oxford

Tutoring two students for their part-B projects.

2022

Lead the Future - Mentor

Lead the Future is a nonprofit organization that helps Italian talents in STEM disciplines to find their path to brilliant careers.

2022-current

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, LOD2023

Interests: Books (any kind, any topic)

Volunteering

Ukrainian Global University - Interviewer

I interviewed Ukrainian students who want to study in a partner university abroad.

April-June 2023

The Kharkiv and Przemyśl Project

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

August 2022

Ukrainian Global University - Interviewer

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

June-May 2022

Eutanasia Legale - Volunteer

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

July 2021

Awards and Scholarships

Trinity College Graduate Scholarship

2020-21, 2021-2022
Trinity College, University of Oxford, UK