

### Personal Information

Born October 29<sup>th</sup>, 1998, Vicenza (VI), Italy  
Citizenship Italian, Australian  
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### Education and Qualifications

- 11/2022 - **PhD in Information Engineering and Computer Science**, *Fondazione Bruno Kessler*  
Ongoing (*FBK*) and *University of Trento*, Trento, Italy  
ELLIS PhD program  
**Project:** *Analysing the effect of counter-narratives on hateful conversations online*  
**Advisors:** Sara Tonelli, Bruno Lepri, Marco Guerini, Goran Glavaš
- 09/2020 - **Master's Degree in Computer Engineering-curriculum AI and Robotics**, *University of Padua, Dep. of Information Eng.*, Padua, Italy  
07/2022  
**Dissertation:** *Leveraging Recursive Neural Networks on Dependency Trees for online-toxicity detection on Twitter*  
**Evaluation:** 110/110 cum laude  
**Advisors:** Giorgio Satta, Fabio Vandin, Dirk Hovy, Federico Bianchi
- 09/2017- **Bachelor's Degree in Information Engineering**, *University of Padua, Dep. of Information*  
09/2020 *Eng.*, Padua, Italy  
**Dissertation:** *Efficient Algorithms for computing the effective diameter of graphs*  
**Evaluation:** 110/110 cum laude  
**Advisor:** Andrea Alberto Pietracaprina

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## Experience

- 03/23 - 09/24 **Teaching Assistant**, *University of Trento*, Department of Information Engineering and Computer Science, **Class:** Applied Natural Language Processing (prof. Jacopo Staiano)
- 09/22 - 10/22 **Research Intern (PhD Incoming)**, *Fondazione Bruno Kessler (FBK)*, Trento, Italy
- 06/22 - 08/22 **Research Intern**, *Bocconi University*, Department of Computing Sciences, Milan, Italy
- 09/21 - 07/22 **Teaching Assistant**, *University of Padua*, Department of Information Engineering

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## Publications

- EACL 2024 **Putting Context in Context: the Impact of Discussion Structure on Text Classification**, *Nicolò Penzo, Antonio Longa, Bruno Lepri, Sara Tonelli, Marco Guerini*. 2024, In Proceedings of the 18th Conference of the European Chapter of the Association for Computational Linguistics (Volume 1: Long Papers), pages 1793–1811, St. Julian's, Malta. Association for Computational Linguistics.

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## Languages

- Italian Native Language
- English High Level

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## Awards

**PhD Scholarship** (Fondazione Bruno Kessler and University of Trento): fixed-theme scholarship to carry out the PhD. The position is part of the FBK International PhD program, working in the Digital Humanities research group.

**ELLIS PhD Program** (ELLIS Society): admitted in the ELLIS PhD Program, with the aim of incentivizing collaborations among researchers in Europe.

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## Miscellaneous

- 11/22 **Program Committee member at the Workshop on Natural Language for Artificial Intelligence (NL4AI, 6th edition)**, co-located @ AIXIA conference. November 28<sup>th</sup> - December 2<sup>nd</sup>, 2022, University of Udine, Udine, Italy
- 09/23 **Program Committee member at the Workshop on Counter Speech for Online Abuse (CS4OA, 1st edition)**, co-located @ SIGDial-INLG conference. September 11<sup>th</sup>, 2023, Prague, Czech Republic
- 11/23 **Program Committee member at the Workshop on Natural Language for Artificial Intelligence (NL4AI, 7th edition)**, co-located @ AIXIA conference. November 6<sup>th</sup> - November 9<sup>th</sup>, 2022, Roma Tre University, Rome, Italy

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## Research Interests

### **Natural Language Processing for Social Phenomena:**

Social Networks give us the need to address social problems, and the possibility to study multi-party and multi-turn dialogues. Tasks such as Hate Speech detection, Fake News detection, Stance detection, or Response Generation share the same social environment and may share common NLP solutions. Researching these models has several advantages, such as the ability to model such social situations and to counteract online toxicity, despite widespread diffusion.

### **Context-aware Natural Language Understanding models**

In the context of social messages, managing the social context in which they appear has been little studied in the past. A context-aware NLU model can generate a representation of the message by inferring contextual information, such as in terms of social interactions (who responded to whom), social following (who follows whom and can react), or reactions. The answer to this need can come from Network Analysis, deterministic to learning-base features extractions, but an efficient combination with NLP models is still lacking.

### **Design and evaluation of models for Multi-Party Conversations**

A multi-party conversation (MPC) refers to a multi-turn dialogue involving more than two participants. These conversations are prevalent on social media, typically being called online MPCs. Jointly capturing both the dynamics of the ongoing interactions and the textual content of the messages is still a critical challenge. Additionally, previous NLP research has often lacked rigorous evaluation methods, missing to explore the relationship between the network complexity of the interaction and the task performance.