# Filippo Merlo

MSc in Cognitive Science and Computational Modeling of Language and Cognition



#### About me

I have obtained an MSc in Cognitive Science and Natural Language Processing, with a keen passion for machine learning and psychology. My expertise lies in model evaluation and experimental design, encompassing both human and artificial intelligence models. Through numerous research internships, I have gained substantial experience in conducting research projects and fostering teamwork. I am confident that my curiosity, researching skills and multidisciplinary background would make me a valuable addition to the team!

#### Areas of specialization

Natural Language Processing
Vision Language ModelsCognitive Psychology

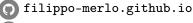
#### References

#### **Professor Albert Gatt**

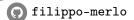
Professor in Natural Language Generation at Utrecht University, Utrecht a.gatt@uu.nl

#### Professor Raffaella Bernardi

Professor in Computational Linguistic at Free University of Bolzano, Bozen Raffaella.Bernardi@unibz.it



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## WORKING EXPERIENCE

Mar 2024 - Mar 2024

## Internship at Natural Language Processing group

RESEARCH · Utrecht-Netherlands ♀

Master thesis research project on State of the art Vision-Language Models (VLMs) Evaluation. Dataset exploration and data curation, Model training and finetuning with Pytorch, VLMs (CLIP, BLIP-3, LLaVa-OneVision, Molmo), Vision Models (ViT, YOLO), Image Generative Models (Stable Diffusion, PowerPaint).

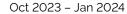


Sept 2023 - Feb 2024

## Internship at Language, Interaction and Computation lab

Research · Trento-Italy ♀

Research project on Evaluating Generative Models' Reasoning Abilies. Dataset exploration (WordNet, ConceptNet, smaller norm datasets) and data curation. Prompt Engineering and Multi-agents experimental setting.



### **University Tutor in Computational Linguistics**

TEACHING · Trento-Italy ♀

Tutoring students in the Computational Linguistics course, teaching foundational concepts and programming laboratory (Python, Hugging Face) and overseeing the final projects.



Dec 2020- Feb 2022

## Internship at Department of General Psychology

Research · Padova-Italy §

(Sett 21–Feb 22) Thesis Project on Online Behavioural Studies on human motion perception. Online Data Collection with JsPsych and Amazon Mechanical Turk. Data analysis with R.

(Dec 20-Jun 21) Internship project on online Behavioural studies during the Covid-19 era. Programming in HTML/CSS/JavaScript.



## Programming Skills

**Python**: Advanced (4 years experience). Proficient in GitHub for version control and collaboration. Strong understanding of machine learning libraries such as PyTorch, with experience in other essential ML tools and frameworks.

**LaTeX**: Advanced (4 years experience). I have extensive experience in using LaTeX for creating professional and academic documents, including research papers, reports, and presentations.

**JavaScript**: Beginner (2 years experience). I have a foundational knowledge of JavaScript and have used it for basic web development tasks, including creating dynamic web pages and simple web applications.

**R**: Beginner (2 years experience). I have a basic understanding of R and have utilized it for statistical analysis and data visualization in academic projects.

#### **PUBLICATIONS**

**2023** ChatGPT's Information Seeking Strategy: Insights from the 20-Questions Game (DOI: 10.18653/v1/2023.inlg-main.11), Association for Computational Linguistics.

### **AWARDS**

2023 Best Evaluation Paper at INLG 2023 (https://sigdialinlg2023.github.io/awards.html)

#### EDUCATION

Sept 2022 - Mar 2025 M.Sc. in Cognitive Science - Computational Modelling of Language and Cognition.

Trento · Italy ♥

GPA: 29.5/30, Final Evaluation: 110 cum laude/110

Sept 2021 - Aug 2022 M.Sc. in Neuroscience

PADOVA-WARSAWA · Italy-Poland 💡

GPA: 29.9/30, Final Evaluation: Suspended

Sept 2018 - Sept 2021 **B.Sc. in Cognitive and Psychobiological Science** 

Padova · Italy ♀

GPA: 28.9/30, Final Evaluation: 110 cum laude/110





## **WORKSHOPS**

- CORE Project Workshop 2024, Universitat Pompeu Fabra. Poster presentation. https://www.upf.edu/web/glif/2024-core-workshop/program
- European Summer School on Artificial Intelligence (ESSAI) 2023. Student.
- Lectures on Computational Linguistics 2023, University of Pisa. Poster presentation.

### LANGUAGES

Italian C2 mother tongue C2 English working proficiency

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