

Walter Paci

NLP SCIENTIST · AI RESEARCHER

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Education

University of Florence

PHD IN DIGITAL HUMANITIES

Florence, Italy

November 2022 - October 2025

- Developing pragmatic language capabilities in LLMs to enhance AI's understanding of user intent in real-world applications.

University of Florence

MASTER'S DEGREE IN LOGIC, PHILOSOPHY AND HISTORY OF SCIENCE

Florence, Italy

2019 - 2021

- Graduated with honors in Computational Linguistics with a thesis titled *L'annotazione delle parti del discorso nei corpora di italiano parlato. Sviluppo di sistemi automatici con algoritmi di intelligenza artificiale*, focused on developing AI-based systems for part-of-speech tagging in spoken Italian corpora.

University of Florence

BACHELOR'S DEGREE IN PHILOSOPHY

Florence, Italy

2016 - 2019

- Graduated in Philosophy with a thesis titled *Non-essere e Falsità nel Sofista di Platone*, exploring Plato's treatment of non-being and falsehood in the Sophist from both a linguistics and a philosophical point of view.

Skills

Computational Linguistics

Corpus creation, discourse analysis, formal semantics, pragmatics, logic

LLMs & Prompting

Prompt design, LLM evaluation, user intent modeling

Programming

Python, R, LaTeX, Git, Overleaf, Jupyter

Libraries

spaCy, NLTK, scikit-learn, Transformers, PyTorch, pandas, regex

NLP Workflows

Text preprocessing, feature engineering, model training

Languages

Italian (native), English (fluent)

Academic Work

Conference talks, peer-reviewed publications

Experience

FairyMinds Technologies

PROMPT ENGINEER AND AI EXPERT

Florence, Italy

February 2026 - Present

- Design and optimization of prompts for LLMs image and text generation
- Development of pipelines for evaluation and quality assurance of AI generated outputs
- Analysis and mitigation of hallucinations and unreliable model behaviors
- Integration of LLM based solutions into software tools and internal workflows

University of Florence

UNIVERSITY TUTOR

Florence, Italy

Jan 2025 - Nov 2025

- Assisted undergraduate and master's students in courses related to linguistics, logic, and computational methods.
- Provided guidance on academic writing, research methodology, and thesis development.
- Designed and led tutorials on NLP tools, corpus analysis, and formal semantics.
- Supported students in using LaTeX, Overleaf, and Git for academic projects.

MaiNLP Research lab

VISITING PHD RESEARCHER

LMU München, Munich, Germany

May 2025 - Sep 2025

- Initiated collaborative research for a joint publication on testing, evaluating and improving the pragmatic competence of Large Language Models (LLMs).
- Delivered invited talks on LLMs and pragmatics, contributing to academic exchange within the lab.

Universidad Autónoma de Madrid

VISITING PHD RESEARCHER

Madrid, Spain

Feb 2025 - Apr 2025

- Conducted research on the pragmatic competence of humans and AI, focusing on comparative evaluation methodologies.
- Explored interdisciplinary approaches to modeling pragmatic understanding in LLMs.
- Delivered invited talks on LLMs and pragmatics, including a lecture on presuppositions and implicatures at the Master in Lenguaje e Inteligencia Artificial.

Dialogue Modelling Group - Institute of Logic, Language and Computation (ILLC)

University of Amsterdam,
Amsterdam, The Netherlands

VISITING PHD RESEARCHER

Sep 2024 - Jan 2025

- Utilized the SNELLIUS supercomputer to run open-weight and closed-weight LLMs for pragmatic evaluation tasks.
- Designed and implemented the IMPAQTs-PID dataset for benchmarking pragmatic inference in LLMs.
- Delivered invited talks on LLMs and pragmatics.

MMAB - Montelupo Museo, Archivio e Biblioteca

Montelupo Fiorentino, Florence, Italy

LIBRARIAN AND MUSEUM OPERATOR

May 2021 - May 2022

- Welcomed visitors of the museum collections.
- Managed scheduling and supervision of cultural events and exhibitions.
- Handled social media communication and promotional content.
- Assisted in cataloging and organizing archival materials and publications.
- Supported library users with research and reference services.

Enfap Toscana

Florence, Italy

TEACHER IN PROFESSIONAL COURSES

Jan 2019 - Dec 2019

- Taught introductory concepts in mathematical and philosophical logic.
- Managed scheduling and supervision of cultural events and exhibitions.
- Delivered lessons on verbal and propositional reasoning.
- Introduced intuitive calculation and problem-solving techniques.

Talks & lectures

This is a selection of my most relevant talks and lectures.

Challenges for LLMs: Dealing with presuppositions and implicatures

Master in Lenguaje e Inteligencia
Artificial – UAM, Madrid

LECTURER

2025

- Talk on pragmatic challenges in LLMs, focusing on presupposition and implicature modeling.

Valutazione di tecniche di prompt engineering per la semplificazione dell'italiano burocratico

University of Molise –
Amministrazione Attiva

INVITED SPEAKER

2024

- Expert evaluation of prompt engineering strategies for administrative language simplification.

Large Language Models and Prompt Engineering Techniques

Master in Digital Humanities –
University of Pisa

LECTURER

2024

- Lecture on LLM architectures and prompting strategies for humanities applications.

Publications

This is a selection of my most relevant paper and works.

They want to pretend not to understand: The Limits of Current LLMs in Interpreting Implicit Content of Political Discourse

Findings of the Association for
Computational Linguistics

WALTER PACI, ALESSANDRO PANUNZI, SANDRO PEZZELLE

2025

“It’s a further exercise in futility”: implicit content detection and classification in Italian political discourse. A pilot study.

AI-Linguistica

WALTER PACI

2025

Word classes and corpus linguistics

De Gruyter

LORENZO GREGORI, WALTER PACI, MASSIMO MONEGLIA

2023

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