Samuele Marro

PhD Student

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Samuelemarro

Education

- Oct '24 Today DPhil in Artificial Intelligence, University of Oxford.
 - 4-year DPhil at the Oxford AIMS CDT under Prof. Philip Torr on multiagent LLMs.
 - Funded by a 250k USD Microsoft studentship. Graduation: Apr '29.
- Sep '22 Jul '24 MSc in Artificial Intelligence, University of Bologna.
 - GPA: 29.75/30, top of the class (170 students). Graduation grade: 110 cum laude.
- Oct '19 Jul '24 Excellency Degree (COTS), Institute of Superior Studies.
 - 5-Year excellency degree (EQF8, Italian system).
 - GPA: 29.88/30. Research topic: adversarial robustness.
- Oct '19 Jul '22 **BSc in Computer Science**, *University of Bologna*.
 - GPA: 29.77/30, top of the class (150 students). Graduation grade: 110 cum laude.

Selected Publications

- Jan '25 Tobin South, Samuele Marro, Thomas Hardjono, Robert Mahari, Cedric Deslandes Whitney, Dazza Greenwood, Alan Chan, Alex Pentland, Authenticated Delegation and Authorized Al Agents, Under review at ICML 2025.
- Oct '24 **Samuele Marro,** Emanuele La Malfa, Jesse Wright, Guohao Li, Nigel Shadbolt, Michael Wooldridge, Philip Torr, *A Scalable Communication Protocol for Networks of Large Language Models*, Under review at ICML 2025.
- Sep '24 **Samuele Marro,** Davide Evangelista, Emanuele La Malfa, Angelo Huang, Michele Lombardi, Michael Wooldridge, *Language Models Are Implicitly Continuous*, **ICLR 2025**.
- Jun '24 Angelo Huang, Emanuele La Malfa, **Samuele Marro**, Andrea Asperti, Anthony Cohn, Michael Wooldridge, *A Notion of Complexity for Theory of Mind via Discrete World Models*, **EMNLP 2024**.
- Jul '23 **Samuele Marro**, Michele Lombardi. Computational Asymmetries in Robust Classification, **ICML 2023**.

Research and Teaching Experience

- Nov '23 Jul '24 **Predoctoral Research Fellow**, *University of Bologna*, Bologna, Italy.
 - $\hbox{$\circ$ Department fellowship on adversarial robustness under Prof. Michele Lombardi.} \\$
- Mar '24 May '24 **Visitor**, *University of Oxford*, Oxford, United Kingdom.
 - Research visit to the Department of Computer Science to conduct research on the Theory of Mind of LLMs under Dr. Emanuele La Malfa and Prof. Michael Wooldridge.
- Sep '22 Jan '23 **Teaching Assistant**, *University of Bologna*, Bologna, Italy.
 - o Taught the Applied ML module of "Introduction to Machine Learning" for the Fall '22 semester.
- Nov '21 Mar '22 **Machine Learning Intern**, *MindIt Srl + Kantar*, Bologna, Italy.
 - o Developed a Tensorflow LSTM implementation compatible with IBM CPLEX optimization algorithms.
 - Rewrote Meta's FBProphet time series model in **Tensorflow**.

Selected Research Awards

- Mar '24 Microsoft Studentship, 250k USD.
 - Studentship for research into communication protocols between LLMs and multimodal memory in generative models.
- Nov '23 AlxIA "Leonardo Lesmo" Award.
 - o Award for the best Italian AI thesis, granted by the Italian Association for Artificial Intelligence.
- Jan '21 CINECA HPC Grant, 170k Core-Hours.
 - Grant for the Galileo100 HPC cluster for research on the computational complexity of adversarial attacks.