Francesco **Salvi**

RESEARCH FELLOW · EPFL

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Education

EPFL   *Lausanne, Switzerland*

MSc in Computational Science and Engineering   *Sept. 2021 - Mar. 2024*

- **GPA: 5.80/6.** Keywords: **Computational Social Science, Natural Language Processing**, Network Science and Data Science.
- Elected **class representative** for two consecutive years, representing 40+ students before the school's executive bodies.
- Advisor: Robert West.

University of Bologna   *Bologna, Italy*

BSc in Physics   *Sept. 2018 - July 2021*

- Grade: **110/110 cum laude**. Final **GPA: 29.96/30**, **top 0.25% of all students.**

Experience

EPFL   *Lausanne, Switzerland*

Research Fellow · Data Science Lab   *Sept 2024 - Present*

- Designing data-driven interventions to reduce the carbon footprint of EPFL's food system, combining RCTs and observational studies.

Research Assistant · NLP Lab & Machine Learning and Optimization Lab   *June 2023 - Sept. 2023*

- Trained medical LLMs adapted for clinical practice at scale, achieving **open-source SOTA performance** and more than **100k downloads**.
- Curated a data corpus of clinical articles and guidelines for continued pretraining and supervised instruction-tuning.

DemoSquare   *Lausanne, Switzerland*

Research Intern   *Apr. 2024 - July 2024*

- Developed predictive models to forecast legislative outcomes in the European Parliament, providing insights into voting trends.

Fondazione Bruno Kessler   *Trento, Italy*

Visiting Fellow   *Sept. 2023 - Feb. 2024*

- Designed an RCT to study the persuasiveness of LLMs in online debates, managing a human study with 1300+ participants.
- Research covered by **The Economist**, New Scientist, The Register, Swiss Radio and TVs, and **informed Anthropic's model evaluation** strategy.

Bain & Company   *Munich, Germany*

Associate Intern, Data Science   *July 2022 - Sept. 2022*

- Created predictive models for customer satisfaction, cornerstones of a product now sold to Fortune 500 companies.
- Productionised the data pipeline by integrating MLOps practices, testing, and automation in a cloud environment.

Publications

[4] NLP4Education Team. Could ChatGPT get an Engineering Degree? Evaluating Higher Education Vulnerability to AI Assistants.
Proceedings of the National Academy of Sciences of the United States of America · **PNAS** (In Press)

[3] Salvi F., Ribeiro M., Gallotti R., West R. On the Conversational Persuasiveness of Large Language Models: A Randomized Controlled Trial.
Under review at **Nature Human Behaviour**.

[2] EPFL LLM Team. MEDITRON-70B: Scaling Medical Pretraining for Large Language Models.
Under review at **Nature Medicine**.

[1] Suresh A., Salvi F.*, Radojevic L.*, Magron A, Kristof V., Grossglauser M. Studying Lobby Influence in the European Parliament.
Proceedings of the 2024 Conference of the North American Chapter of the Association for Computational Linguistics · **NAACL 2024 (Main)**

Teaching

2022   **Teaching Assistant**, Applied Data Analysis (CS-401, EPFL) — Mentored and graded a class of 485 students.

2022   **Teaching Assistant**, Machine Learning for Behavioral Data (CS-421, EPFL) — Created practical tutorials and tested exam materials for 40+ students.

Service

2025   **PC member**, Workshop on NLP for Deliberation and Democracy — Proposal submitted to the *ACL

2024   **Ad-hoc Reviewer**, Social Influence

2024   **Ad-hoc Reviewer**, CHI 2025

Talks

Sparks of Superhuman Persuasion: Large Language Models Beat Humans in Online Debates ....

2025   **CS2Italy (Oral)**, Italian Conference on Computational Social Science 2025

2024   **M^{2}L (Poster)**, Mediterranean Machine Learning summer school

2024   **IC^{2}S^2 (Oral)**, International Conference on Computational Social Science 2024

Analyzing Congestion around Bologna with Traffic Simulations ....

2019   **CISF (Poster)**, V Italian Conference of Physics Students

Honors & Awards

2023   **Scholarship Awardee**, Wikimedia Hackathon.

2022   **Finalist**, HackZurich (top 20 projects amongst 1300 participants).

2021   **Excellence Scholarship for Outstanding Academic Record**, University of Bologna (< 0.5% of students).

2020   **Excellence Scholarship for Outstanding Academic Record**, University of Bologna (< 0.5% of students).

Additional & Ongoing Projects

The AI Persuasion Project

- Co-leading a cross-disciplinary team of 50+ researchers in a large project evaluating LLMs' persuasive capabilities.

Topical Classification of Wikipedia Images

- Developed a hierarchical classifier for Wikipedia images within a topical taxonomy, in a year-long collaboration with Wikimedia Research.

LLMs' persuasiveness in the real world

- Designing a field experiment to test LLMs' real-world persuasiveness, using bots to engage with users on Reddit.

A data-driven Political Compass

- Analyzed a dataset of ~180 mln quotations to infer a novel Political Compass and curated a data story about US politics.

Extracurricular Activity

Lead The Future

Mentee   *Sept. 2020 - Present*

- Selected to be part of LeadTheFuture, a **leading mentorship organization** for Italian students in STEM with a < 15% acceptance rate.
- Advanced to the core team, reviewing applications for the 2023 and 2024 cycles.

Orienta|Me   *Bologna, Italy*

Mentor   *Apr. 2021 - July 2021*

- Mentored 3 high school students, guiding their academic choices to support their transition to university.

Italian Association of Physics Students (AISF)   *Bologna, Italy*

President of Bologna Local Committee   *June 2019 - June 2020*

- Elected **President of the Bologna Local Committee** of AISF, an association gathering more than 1400 Italian physics students.
- Organised seminars, social events, LaTeX courses, and visits to research centers with 50+ participants.

Skills

Languages	Italian (native language), **English** (C1 IELTS), **French** (B2 EsaBac)
Programming	Python (PyTorch, HuggingFace, Scikit-Learn, Pandas, PySpark), C++ (OpenMP, MPI, CUDA), MATLAB, R, JavaScript, HTML.
Others	Git, Docker, Google Cloud Platform (Vertex AI, BigQuery, Compute Engine), LaTeX, ROOT, LabView.