

STEFANO VIEL

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EDUCATION

MSc in Data Science, EPFL

September 2023 - Expected July 2025

- Courses: Data analysis, Machine learning, Causal inference, Markov chains, Reinforcement learning, Modern natural language processing, Network machine learning, Large scale data science.

BSc in Computer Science, University of Trento

September 2020 - July 2023

- Relevant courses: Programming languages (Python, C++, Java), Algorithms and data structures, Software engineering, Databases.
- **GPA:** 28.57/30 (top 5% of my year), **Final Grade:** 110/110 with honors.

WORK EXPERIENCE

Research Intern

June 2024 - September 2024

ETH Zurich

Zurich, Switzerland

- Conducted an analysis of approximately 12 billion Reddit posts to identify trends in polarization and the evolution of content over time.
- Applied NLP and ML techniques, including sentence embedding, generative models, dimensionality reduction, and clustering algorithms.

Research Intern

March 2023 - June 2023

Fondazione Bruno Kessler

Trento, Italy

- "Contributed to the European project AI4TRUST, focusing on mitigating disinformation spread across social media.
- Focused on the Mastodon social network, scraping over 100,000 decentralized servers and gathering data on 6 million users to map the complete network structure.

PROJECTS

Course assistant chatbot for STEM subjects

- Developed STEMERALD, a STEM course assistant using the Gemma-2b language model, implementing Supervised Fine-Tuning and Direct Preference Optimization.
- Achieved 70% accuracy across various multiple-choice question benchmark datasets.
- Successfully reduced the model's memory footprint to 2GB, enabling its deployment on consumer-grade hardware.

Solving Wordle with Reinforcement Learning

- Applied RL to solve Wordle and similar few-step environments using large language models, focusing on behavioral cloning.
- Developed and tested a novel reward-weighted behavioral cloning method, demonstrating its ability to generalize traditional behavioral cloning approaches and effectively manage datasets of varying quality.

CERTIFICATES, AWARDS, AND HOBBIES

2023 IELTS Certification: Overall Score of 8.0, Equivalent to C1 on the CEFR scale.

2022 Participated in the Utrecht Debating Society for a duration of six months.

2018 I was selected and participated in a one-week internship at CERN (Geneva).