Francesco **Salvi**

MSC STUDENT · COMPUTATIONAL SCIENCE AND ENGINEERING

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Education

EPFL   *Lausanne, Switzerland*

MSC IN COMPUTATIONAL SCIENCE AND ENGINEERING   *Sept. 2021 - Jan. 2024*

- **GPA: 5.82/6.** Keywords: **Computational Social Science, Machine Learning, Network Science** and Data Science.
- **Class delegate**, representing 40+ students to the Section, the Executive Board and the General Student Association.
- Student **Teaching Assistant** for "Applied Data Analysis" (Fall 2022) and "Machine Learning for behavioral data" (Spring 2022).

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 UniBo students.**
- UniBo grant for students with outstanding academic records, awarded to **< 0.5% of students** from the whole university.

Experience

Bain & Company | NPSx   *Munich, Germany*

ASSOCIATE INTERN, DATA SCIENCE   *July 2022 - Sept. 2022*

- Created **predictive models for NPS and CLV**, cornerstones of a product now sold to Fortune 500 companies.
- Productionised the data pipeline by integrating **MLOps** practices, testing and automation within **GCP**.

Projects

Topical classification of Wikipedia images

RESEARCH PROJECT IN THE DATA SCIENCE LAB   *Feb. 2022 - Present*

- Developing a hierarchical classifier for Wikipedia images, categorizing them only by their topic in a weak supervision framework.
- Designed a set of **linguistically motivated heuristics** to associate images with training labels within a custom taxonomy.
- Year-long collaboration with Wikimedia Research, soon to be **wrapped up with a first-author publication** (*in preparation*).

A data-driven Political Compass

APPLIED DATA ANALYSIS COURSE PROJECT   *Sept. 2021 - Dec. 2021*

- Analyzed a dataset of ~180 mln quotations with **Apache Spark** within Python.
- Leveraged **Topic Extraction** and **Sentiment Analysis** to infer a new Political Compass and curated a data story on US politics.

Disambiguating Voynich Manuscript transliterations

MACHINE LEARNING COURSE PROJECT   *Sept. 2021 - Dec. 2021*

- Fine-tuned word embedding models (**fastText, Word2vec**) on the task of disambiguating uncertain transliterations, with scarce data.
- Built a benchmark on Italian and Latin and obtained a model with overall accuracy of 86%, subsequently employed with an unknown script.

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 acceptance rate < 20%.

Orienta|Me   *Bologna, Italy*

MENTOR   *Apr. 2021 - July 2021*

- Selected as Mentor in Orienta|Me, a project promoting university orientation by advising high school students in their academic choice.

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

PRESIDENT OF BOLOGNA LOCAL COMMITTEE   *June 2019 - June 2020*

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

Skills

Languages	Italian (native language), **English** (C1 IELTS), **French** (B2 EsaBac)
Programming	Python (PyTorch, TensorFlow, Keras, pyspark), C++ (OpenMP, MPI, CUDA), MATLAB, R.
Others	ROOT, LabView, LaTeX, Git, GnuPlot, Google Cloud Platform.