

LORENZO BETTI

EDUCATION

M.Sc. in Physics of Complex Systems

2017 - 2019

University of Turin, Turin (IT)

Final mark: 110/110 magna cum laude

Thesis: User representation in online vaccine discussion: combining topic modeling and network embedding.
Supervised by Laetitia Gauvin and co-supervised by Michele Starnini.

B.Sc. in Physics and Astrophysics

2011 - 2016

University of Florence, Florence (IT)

Final mark: 104/110

RESEARCH EXPERIENCE

Junior Researcher - ISI Foundation, Turin (IT)

November 2020 - Present

Undertook an industrial research project in Data Science and Artificial Intelligence in a team led by Andreas Kaltenbrunner (Nov. 2020 - Sept. 2021). Participating in research activities on Computational Social Science and Explainable Artificial Intelligence.

- Used Google Cloud Platform to develop and train deep learning models for Natural Language Processing tasks (i.e., text generation and text classification).
- Contributed in the preparation of presentations to communicate results to the client.
- Increasing time management skills to carry out more projects in parallel.
- Improving the ability to conduct experiments autonomously and coordinate with other members of the team.

Scholarship - ISI Foundation, Turin (IT)

November 2019 - October 2020

Conducted research on childhood vaccine hesitancy under the supervision of head researchers.

- Collected data from an online forum through web scraping, constructed the network of communication between users, and extracted information from texts.
- Contributed with ideas and opinions to research activities.
- Contributed in writing the manuscript.
- Improved skills in work organisation and ability to communicate results and conclusions for analysis.

Internship Thesis - ISI Foundation, Turin (IT)

March 2019 - October 2019

Carried out short-term research for the master's thesis project.

- Used the Twitter API to collect social media data.
- Learned techniques of unsupervised machine learning applied to text and networks.
- Improved experience in data collection and cleaning of textual data.

TEACHING EXPERIENCE

Teaching assistant - University of Turin, Turin (IT)

February 2018 - May 2018

Prepared exercises of physics and provided explanations and solutions during weekly classes to undergraduate students.

TECHNICAL STRENGTHS

Programming languages

Python (NetworkX, scikit-learn, pandas, PyTorch, spaCy, PySpark)

Software

Keynote, Google Workspace (Docs, Sheets, Slides, Colab), Gephi, L^AT_EX

LANGUAGE SKILLS

Italian
English

Native
Fluent
Duolingo English Test: 120/160

PUBLICATIONS

Betti, L., Abrate, C., & Kaltenbrunner, A. (2022). Large scale analysis of gender bias and sexism in song lyrics. *Manuscript submitted for publication*.

Betti, L., De Francisci Morales, G., Gauvin, L., Kalimeri, K., Mejova, Y., Paolotti, D., & Starnini, M. (2021). Detecting adherence to the recommended childhood vaccination schedule from user-generated content in a US parenting forum. *PLoS computational biology*, 17(4), e1008919.