

Gabriele Sarti

MSC CANDIDATE IN DATA SCIENCE, UNIVERSITY OF TRIESTE & SISSA

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Education

University of Trieste, International School for Advanced Studies (SISSA)

Trieste, Italy

Master of Science (MSc) in Data Science and Scientific Computing, 110 Cum Laude

October 2018 - December 2020

- Data Science track, all courses are taught and assessed in English.
- Thesis: "Interpreting Neural Language Models for Linguistic Complexity Assessment".
- Supervisors: Felice Dell'Orletta (ILC-CNR), Davide Crepaldi (SISSA).

Cégep of Saint-Hyacinthe

Saint-Hyacinthe, Canada

Collegial Studies Degree (DEC) in Informatics, Management Informatics Specialization

August 2015 - June 2018

- Graduated with work-study mention with final internship under the supervision of Prof. Hugo St-Louis.
- All courses are taught and assessed in French. Final R Score: 34.134.

Experience

Institute of Computational Linguistics "Antonio Zampolli" (ILC-CNR)

Pisa, Italy

Research Assistant Intern in Natural Language Processing

October 2019 - December 2019

- Supervised by Felice Dell'Orletta and Dominique Brunato. The internship led to a long paper submission to the 2021 Conference of the European Chapter of the Association for Computational Linguistics (EACL).
- Developed a pipeline to train neural language models in a multitask setting using complexity annotations and eye-tracking measures using Pytorch. Multi-task models were evaluated on complexity assessment tasks and compared by means of interpretability approaches.

Skytech Communications Inc.

Montreal, Canada

Machine Learning Engineer Intern

February 2018 - June 2018

- Implemented and deployed a solution based on convolutional neural networks to augment the performances of an automatic record keeping systems by adding handwritten characters recognition capabilities.
- Development of a software platform using sentiment analysis and information retrieval techniques in order to highlight inappropriate student comments in professors' evaluation forms.

Talks and Publications

SELECTED PUBLICATIONS

ETC-NLG: End-to-end Topic-Conditioned Natural Language Generation

Ginevra Carbone, Gabriele Sarti

Proceedings of the 4th Workshop on Natural Language for Artificial Intelligence (NL4AI), AIXIA 2020

Italian Transformers Under the Linguistic Lens

Alessio Miaschi, Gabriele Sarti, Dominique Brunato, Felice Dell'Orletta, Giulia Venturi

Proceedings of the 7th Italian Conference on Computational Linguistics (CLIC-it 2020)

Improving Complexity and Acceptability Prediction with Multi-task Learning on Self-Supervised Annotations

Gabriele Sarti

Honorable mention, Proceedings of the 7th Evaluation Campaign of NLP and Speech Tools for Italian (EVALITA 2020)

TALKS

Hey Siri, What's Computational Linguistics?

Gabriele Sarti — SISSA Student Day 2020, collaboration with AILC Communication Team

Neural Language Models: The New Frontier of Natural Language Understanding

Gabriele Sarti — Young Chapter of Italian Statistical Society (ySIS), StaTalk 2019

AI – Artificial Irony. The Support of Svevo to the Candidature of Trieste as UNESCO’s Literary City

Riccardo Cepach, Cristina Fenu, Giuseppe O. Longo, Gabriele Sarti — Trieste Next, 2019

The Educational Impact of Artificial Intelligence

Gabriele Sarti, Alexandre Brunet — 38th Symposium of Québec Association for Collegial Pedagogy (AQPC), 2018

Extracurricular Activity

SCIENTIFIC COMMUNICATION

Italian Association for Computational Linguistics (AILC)

Italy

Communication Team Member

January 2020 - Present

- Promote the field of computational linguistics at local and national scientific festivals (e.g. Bergamo Scienza, European Science Open Forum 2020, etc.) through presentations and interactive demonstrations.

Trieste Next Scientific Festival

Trieste, Italy

System Demonstration Organizer

June 2019 - September 2019

- Trained a state-of-the-art neural language model on Svevo epistolary corpus to generate coherent sentences in the Italian of the 20th century.
- Implemented an end-to-end system to generate and print generated Svevo letters as a demonstration for the workshop.
- Organized the 3-day live demonstration “Altalo Svevo: Letters from an Artificial Intelligence” with more than 3000 participants to inform citizens about uses and limitations of natural language generation systems.

RESEARCH PROJECTS

March 2020 **COVID-19 Semantic Browser**, in collaboration with Area Science Park and AILC

May 2019 **Diachronic Topic Modeling and Sentiment Analysis of the Svevo Epistolary Corpus**, AILC Lectures on CL

SOCIAL ENGAGEMENTS

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| 2020 | President , Artificial Intelligence Student Society (AI2S) |
| Since 2018 | Student Representative , Data Science MSc at University of Trieste |
| Since 2015 | Volunteer , AFS Italy and AFS Canada |
| 2017 | Vice-President , Quebec Federation of College Students (FECQ) Institutional Affairs Committee |
| 2017 | President , Cegep of Saint-Hyacinthe Student Union |

Honors & Awards

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| 2020 | Best System , AcComp-it Shared Task at EVALITA 2020 | Italy |
| 2018 | Excellence Studentship for Data Science Students , SISSA | Trieste, Italy |
| 2018 | Valedictorian of the Management Informatics Class of 2018 , Cégep of Saint-Hyacinthe | Saint-Hyacinthe |
| 2018 | Top Writer , Quora Italia | Italy |
| 2016 | Perseverance Scholarship for Informatics Students , Hydro-Québec | Saint-Hyacinthe |
| 2013 | Full Merit Scholarship towards an AFS Exchange Year in Canada , TIM | Rome, Italy |

Academic Referees

Luca Bortolussi

Associate Professor at the Department of Mathematics and Geoscience, University of Trieste — lbortolussi@units.it

Felice Dell’Orletta

Researcher at the Institute for Computational Linguistics “A.Zampolli” (ILC-CNR), Pisa — felice.dellorletta@ilc.cnr.it

Davide Crepaldi

Associate Professor in Cognitive Neuroscience, International School for Advanced Studies (SISSA) — davide.crepaldi@sisssa.it