

Gabriele Sarti

MSc CANDIDATE, 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

October 2018 - Present

- Data Science track, all courses are taught and assessed in English.
- Thesis (currently under work): “Cognitively-informed NLP Systems for Complexity Assessment”.
- Supervisors: Felice Dell’Orletta (ILC-CNR), Davide Crepaldi (SISSA).

Cégep of Saint-Hyacinthe

Saint-Hyacinthe, Canada

Technical 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.

G. Galilei Scientific Lyceum

Trieste, Italy

Scientific Lyceum Degree in Applied Sciences

September 2010 - July 2015

- Thesis: “Behavioral Game Theory: Ius Gentium of Our Era”. Final grade: 97/100.

Experience

Institute of Computational Linguistics “Antonio Zampolli” (ILC-CNR)

Pisa, Italy

Research Assistant Intern in Natural Language Processing

October 2019 - Present

- Supervised by Felice Dell’Orletta and Dominique Brunato. The internship led to a short paper submission to the Cognitive Modeling and Psycholinguistics track of ACL 2020.
- Developed a pipeline to train deep learning models in a multitask setting using complexity annotations and eye-tracking measures with Pytorch and Keras. The pipeline was used to compare results of single-task and multi-task models on complexity assessment.

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.

CTT Group

Saint-Hyacinthe, Canada

Software Development and Management Intern

October 2015 - August 2017

- Optimization and development of a C++ software used to produce 3D multi-layered textile products for the aeronautic industry.
- Designed and developed a verification procedure for a software used to validate laboratory analysis on textile and geo-synthetic products.
- Developed and optimized an ERP private website used to manage the center’s organizational aspects using C#, SQL and ASP.NET MVC.

Talks and Publications

PUBLICATIONS

You Perceive What You See: Connecting Complexity Judgments with Eye-tracking Metrics

Gabriele Sarti, Dominique Brunato and Felice Dell’Orletta — Submitted, Association for Computational Linguistics (ACL), 2020

Topic Modeling and Sentiment Analysis of Italo Svevo Epistolary Corpus

Gabriele Sarti, Cristina Fenu and Eric Medvet — Poster presented at AILC Lectures on Computational Linguistics, 2019

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

The Literary Ordinance: When the Writer is an AI

Gabriele Sarti, Cristina Fenu and Felice Dell'Orletta — Trieste Science+Fiction Festival, 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

Participation in a research project on using preforms in manufacturing composite components

Gabriele Sarti, Anthony Michon — 84th Congress of the French-Canadian Association for the Advancement of Science (ACFAS), 2016

Skills

Tools Jupyter Notebooks, LaTeX (Overleaf), Git (Github), CI (Travis, Circle), Microsoft Azure, Blogging (Hugo, Medium)

Libraries OpenMP, MPI, Numpy, Scikit-Learn, Pandas, Pytorch, Tensorflow, Keras, NLTK, StanfordNLP, SpaCy, Transformers

Languages Italian (main), English (not assessed), French (C2, TCF), Spanish (not assessed)

Programming Python, C#, C++, Bash, SQL, R, Java

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

Workshop 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" to inform people about capabilities and limitations of natural language generation systems and share knowledge about the local author.

SOCIAL ENGAGEMENTS

Since 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

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