Barbara **Gendron**

First-year PhD Student in Natural Language Processing (NLP) at LORIA, Nancy, France

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♥ 5B avenue de Joinville, 60500 Chantilly, France

Broad profile

Graduated Engineer with qualification in Applied Mathematics and Computer Science

Fluent in English, notions in Spanish and Japanese

Efficient, diligent and autonomous



EDUCATION

2022-2023

University of Luxembourg, Master of Data Science (second year) as a double diploma

Esch-sur-Alzette, Luxembourg

- > Major in Machine and Deep Learning, Computer Vision and applications to Medical Imaging, Natural Language Processing, Network analysis
- > Minor in Actuarial Science and Non-parametric Statistics

2020-2023 Nancy, France

Mines Nancy engineering school, Industrial Engineering and Applied Mathematics department

> Major in Data Analysis, Machine/Deep Learning, Probabilities, Partial Differential Equations, Numerical Analysis and Stochastic Methods

- > Minor in Physics, Molecular Biology and Bioinformatics
- > Research project in Natural Language Processing based on multilingual information retrieval, leading to the writing of a survey on multilingual language models properties. Carried out at LORIA (French Computer Science laboratory).

2018-2020 Paris, France

Saint-Louis 'Classe Préparatoire'. Intensive undergraduate two-year study course preparing for competitive exams to the French Grandes Écoles which are top French and highly-selective institutions

> Linear Algebra, Advanced Calculus, Electromagnetism, Signal Processing, Algorithmic

July 2018 Chantilly, France

Jean Rostand High School, Baccalauréat Scientifique section Européenne (high school leaving diploma with a major in Mathematics and English) passed with the congratulations of the Jury (19.36/20)



EXPERIENCE

August 2023 March 2023

NLP Research Intern, LORIA, Nancy, France

- > Implementation of an end-to-end metric learning approach for emotion recognition in conversations using contextual dialogue representations.
- > Mastering of PyTorch basics.
- > Writing of the Master Thesis "Meta-Learning for Emotion Detection in Conversational Context".

Natural Language Processing | Deep Learning Frameworks | Team work

February 2023 November 2022

Data Science research assistant, UNIV. OF LUXEMBOURG, Esch-sur-Alzette, Luxembourg

- > Part of the Interventional Neuroscience Group of the Luxembourg Centre for Systems Biomedicine.
- > In charge of providing support and documentation on specific data science and machine learning issues as well as medical imaging tools (ANTs, MONAI,...).

Medical Imaging Deep Learning Frameworks Team work

August 2022

Data Scientist intern, GRTGAZ, Bois-Colombes, France

June 2022

- > Part of the IT Direction of a French company specialised in high-pressure gas transportation.
- > Pre-processing technical data from gas infrastructures and development of a regression model for predictive maintenance.
- > Learning and mastering of Dataiku DSS plateform for data preparation and analysis.

Communication skills | Practical Data Science Techniques | Team work

March 2022

Quality Manager, FORUM EST-HORIZON, Nancy, France

February 2021

- > Recruitment fair organized by Mines Nancy students (23 members), which gathers 55 companies and welcome 1500 visitors every year
- > In charge of checking correctness and coherence of all visuals and written supports produced by the association

Monitoring diverse activities Giving feedback and assistance Ensuring clarity of information

May 2021 November 2020

Science communicator, La Main à la Pâte, Paul Lévy primary school in Saint-Max, France

> Preparing and leading twelve afternoons of scientific workshops around the concept of motion

> Implementing a group project for the pupils, guiding experiments leading to the building of a small vehicle

Teaching skills | Workshops conception | Communication skills

PUBLICATIONS

December 2023 Felix Gaschi, Ilias El-Baamrani, Barbara Gendron, Parisa Rastin, and Yannick Toussaint. 2023. Codeswitching as a cross-lingual Training Signal: an Example with Unsupervised Bilingual Embedding. In Proceedings of the 3rd Workshop on Multi-lingual Representation Learning (MRL), pages 208–217, Singapore. Association for Computational Linguistics.

May 2023

Blivet et al. Participation de l'équipe TTGV à DEFT 2023 : Réponse automatique à des QCM issus d'examens en pharmacie. Actes de Atelier DÉfi Fouille de Textes (DEFT) (DEFT'2023).

SKILLS

Programming languages

Python, R, Bash, Matlab, SQL requests

Development tools and frameworks

VSCode, Jupyter Notebooks, RStudio, Dataiku DSS, Git, Docker, PyTorch, Tensorflow

Other tools

LTFX, Office: Word, Excel, PowerPoint, Final Cut Pro X (video editing)

66 LANGUAGES

French Mother tongue

Fluent. Cambridge English Proficiency Certificate, C1 level, obtained in June 2021 English

Spanish Communication skills

Basic notions. Japanese Level Proficiency test, N5 level obtained in December 2021 Japanese

INTERESTS, CLUBS AND SOCIETY INVOLVMENT

Today

Voluntary worker as science communicator assistant, PAVILLON DE MANSE, Chantilly, France

2015

> Video editing for communication support on this high place of French industrial heritage

> Assisting scientific workshops conception and animation with qualified science communicators Video editing | Sense of pedagogy | Running projects | Communication skills

Music Electric guitar within a group (7 years), involved in some concerts

Sport Tennis (4 years) and table tennis (2 years), member of the ultimate frisbee university team