Barbara GENDRON

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

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🎓 EDUCATION

2023-Now Nancy, France	**LORIA (Laboratoire Lorrain de Recherche en Informatique et ses Applications)**, PhD in Computer Science *"Controlled Conversational Models through Conversation-Dedicated Ontology"* › The aim of the thesis is to implement and exploit an ontology dedicated to intrinsic conversational information in order to control the output and analysis of conversational models based on large language models (LLMs).
2022-2023 Esch-sur-Alzette, Luxembourg	**University of Luxembourg**, Master of Data Science (second year) as a double diploma › **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 June 2022	**Data Scientist intern, GRTgaz, Bois-Colombes, France** › 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 February 2021	**Quality Manager, Forum Est-Horizon, Nancy, France** › 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. Code-switching 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	LaTeX, Office : Word, Excel, PowerPoint, Final Cut Pro X (video editing)

❝ Languages

French	Mother tongue
English	Fluent. Cambridge English Proficiency Certificate, C1 level, obtained in June 2021
Spanish	Communication skills
Japanese	Basic notions. Japanese Level Proficiency test, N5 level obtained in December 2021

💡 Interests, Clubs and Society Involvment

Today 2015	**Voluntary worker as science communicator assistant, Pavillon de Manse, Chantilly, France** › 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