



Alex R. Atrio

PhD in NLP

alexratrio.github.io

SOFTWARE

Programming	Python
	Prolog
Toolkits	Pytorch
	Tensorflow
Visualization	Matplotlib
	Pandas
OS	Linux
	Windows
Misc.	LaTeX
	Git

LANGUAGES

English	C2 - Fluent
French	C1 - Fluent
Spanish	Native
Catalan	Native

PhD in NLP

FR/ENG/ESP/CAT

PhD graduate from EPFL, I am highly qualified and have extensive expertise in managing collaborative projects in Natural Language Processing (NLP). My experience spans various areas of NLP, from strategy planning, training, optimization to analysis of neural models.

Quick comprehension | Sense of analysis and organization

Flexible | Initiative spirit | Autonomous | Motivated | Open

SKILLS

- ▲ Expertise in NLP / Machine Learning research projects
- ▲ Collaboration on practical projects with clients
- ▲ Neural machine translation
- ▲ Text generation with language models
- ▲ Writing and synthesis of results, for the publication of scientific articles and presentation at conferences

PROFESSIONAL EXPERIENCE

2019 - 2023	PhD student & research assistant Haute École d'Ingénierie et de Gestion du Canton de Vaud & École Polytechnique Fédérale de Lausanne
	<ul style="list-style-type: none">▲ Conduct research in various NLP projects at HEIG-VD, while pursuing a doctorate at EPFL. Management of responsibilities between both roles▲ Supervise the entire life cycle of NLP projects: from data collection, definition of architecture and hyperparameters, to evaluation and analysis of neural models▲ Python, with standard machine learning libraries using PyTorch▲ Expertise in the latest research in NLP▲ Engaged in collaborative and multidisciplinary teams▲ Strong organizational and communication skills, articulating complex ideas in clear terms in NLP projects
2020 & 2022	Teaching assistant Haute École d'Ingénierie et de Gestion du Canton Vaud
	<ul style="list-style-type: none">▲ Two third-year NLP courses in French▲ Guide students according to requests mentioned in class▲ Review and provide constructive feedback regarding regular practical laboratory work

CONTACT



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Spanish (EU) nationality
Swiss Permit B

INTERESTS

Functional and active
international team

Projects with state-of-the-art
technology

Open, friendly and agile
working environment

Development prospects

Continuous learning
opportunities

REFERENCE

Andrei Popescu-Belis

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HEIG-VD. Senior scientist at EPFL

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EDUCATION

2023 **PhD in NLP**
École Polytechnique Fédérale de Lausanne (EPFL)
Thesis: Regularization Techniques for Low-Resource
Machine Translation
Supervisors: Andrei Popescu-Belis et Jean-Marc Odobez

2018 **Master in Cognitive Sciences**
University Pompeu Fabra et University of Barcelona
Thesis: MT Reordering as Preprocessing for Cross-Lingual
Sentiment Analysis
Supervisors: Toni Badia et Jeremy Barnes

2016 **Bachelor in Philosophy**
University of Barcelona

PUBLICATIONS

I have authored research covering various areas in NLP. For a comprehensive
list of my publications, please visit my [homepage](#)

- ▲ **Atrio, À.R.**, Popescu-Belis, A. (2022). *On the Interaction of Regularization Factors in Low-resource Neural Machine Translation* (EAMT 22)
- ▲ **Atrio, À.R.**, Popescu-Belis, A. (2021). *Small Batch Sizes Improve Training of Low-resource Neural MT* (ICON 21)
- ▲ **Atrio, À.R.**, Badia, T., Barnes, J. (2019). *On the Effect of Word Order on Cross-lingual Sentiment Analysis* (SEPLN 19). **Best paper award**

INDUSTRY-DRIVEN NLP PROJECTS

During my PhD, I also collaborated simultaneously on more applied projects
with external partners:

- 2022-2023 **UNISUB – Unsupervised Neural Machine Translation**
Armasuisse - Swiss Federal Armaments Office
- ▲ Contribute as a senior team member to the project
 - ▲ Focus on end-to-end optimization through adaptive scheduling of training tasks
- 2020-2021 **FamilyMT – Multilingual Neural MT for Language Families**
Armasuisse - Swiss Federal Armaments Office
- ▲ Contribute as a senior team member to the project
 - ▲ Design systems for closely related source languages
- 2019-2020 **Digital Lyric – Computer-assisted Poetic Creation**
Swiss National Science Foundation Agora
- ▲ Collaboration and development of an interactive poetry generation system with user-defined constraints
 - ▲ Successfully showcased at public events