

Lucía Ormaechea

Ph.D. Candidate · NLP Researcher · Computational Linguist

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| Im lucía-ormaechea | ≥ Lucía Ormaechea

Summary.

Currently finishing a joint Ph.D. in Natural Language Processing at University of Geneva and University of Grenoble-Alpes. As highlighted in the list of Selected Publications, my research work to date has focused on: *i)* **Speech-to-Text Technologies** (with particular emphasis on **Speech Simplification** and **Speech Recognition**); *ii)* **Machine Translation**; and *iii)* **Large Language Models**.

Actively seeking new job opportunities where I can contribute with my expertise in the fields of Natural Language Processing and Artificial Intelligence. Open to learning new tools and technologies if needed.

Experience

Research Scientist & Teaching Assistant

Geneva, Switzerland

Université de Genève Dec. 2020 - Present

- Participated in **PROPICTO** ☐:
 - Developed and fine-tuned cascade and end-to-end models for simplification of spontaneous French.
 - Authored numerous publications in high-impact conferences and journals.
- Contributed to **BabelDr** 2: deployed a **containerized Docker application** to perform ASR inside the **BabelDr medical translation device**.
- Collaborated in Localization (M.A. course): preparation of course materials, assignment grading, assistance to students in practical sessions.

NLP Research Engineer Grenoble, France

LABORATOIRE D'INFORMATIQUE DE GRENOBLE (LIG)

Feb. 2020 - Sep. 2020

- Created a complete pipeline for **injecting grammar-based language models** into the Kaldi speech recognition toolkit.
- Trained HMM-DNN-based acoustic models using open-source corpora; conducted prototype testing and evaluation.
- Developed Kaldi-based ASR systems for specialized medical translation devices.

Translation & Localization Intern

Remote Working Jul. 2018 - Sep. 2018

NEW YORK HABITAT

- Translated **ENG > ESP commercial texts**: video transcriptions travel articles apartment reviews client testimonials.
- · Selected publications:
 - Bajo la sombra del cine: una guía del cine en Nueva York (parte 1: Manhattan) ♂, (2018).
 - El cine de los distritos: un recorrido por el cine de Nueva York (parte 2) ♂ , (2018).

Undergraduate Research Assistant

Pamplona, Spain

Universidad de Navarra

Sep. 2016 - Jun. 2017

- Collaborated as a research assistant at the **Department of Philology** ♂
- Development of **educational materials** aiming to automatically evaluate knowledge of Spanish language in L2 learners.
- One-on-one tutorial assessment on academic writing; proofreading of academic papers.

Education

Ph.D. (Joint Degree) in Computer Science & Multilingual Information Processing

Geneva, Switzerland

Université de Genève – Université Grenoble-Alpes

Jun. 2022 - present

- Currently finishing a joint Ph.D. between the Departement of Translation Technology 2 at UNIGE, and the GETALP team 2, at UGA.
- Ph.D. Project: Towards Simpler Transcripts: Investigating Automatic Simplification of French Spontaneous Speech

M.Sc. in Natural Language Processing

Paris, France

INSTITUT NATIONAL DES LANGUES ET CIVILISATIONS ORIENTALES (INALCO) – UNIVERSITÉ SORBONNE-NOUVELLE (PARIS 3)

Sep. 2018 - Sep. 2020

- · Graduated with High Honors.
- **Coursework**: Scripting (Bash, Python, Perl) Object-Oriented Programming (C++, Java) Statistical methods for corpus exploitation Text Mining Convolutional Neural Networks (Keras) Corpus Linguistics Mark-up Languages (XML, XSLT) Databases (SQL, Neo4J).
- Master's Thesis: Mise en place d'un système robuste de reconnaissance automatique de la parole appliqué au domaine médical 🗗 GPA: 19/20

B.A. in Hispanic Philology

Pamplona, Spain

Sep. 2014 - Jun. 2018

Universidad de Navarra

- Extraordinary End-of-Degree Award Nominee.
- Coursework: Lexicology Semantics Phonetics Phonology Morphology Syntax Discourse Analysis.

Last update: May 21, 2025 Lucía Ormaechea · Résumé

Teaching & Assistantships

M.A. in Translation, M.A. in Multilingual Communication Technology – *Teaching Assistant*, Localization, with L. Morado (2021, 2021-2024

2022, 2024), and S. Girletti (2023), Université de Genève

Workshops on Spanish Language – *Instructor*, Grammar courses for non-native undergraduate students, Universidad de

Navarra

Languages

Spanish Native speaker

English Proficient Advanced Certificate in English (CAE)

French Proficient Diplôme Approfondi de Langue Française (DALF)

Italian Conversational

Software Skills

Programming Python, Bash (proficient) – Perl, SQL (comfortable) – C++, Java (some experience)

AI Models & Techniques Supervised learning – LLMs – Pre-training – Fine-tuning (full and parameter-efficient) – Prompt engineering

Libraries Transformers – Speechbrain – Langchain – Flask – Keras – Fairseq – Pandas – NLTK – SpaCy – Scrapy **Tools** Kaldi – Slurm – Git – Vim – LaTeX – Docker – Praat – Pip – Nginx – Sublime Text – Hugging Face Spaces

Operating Systems GNU/Linux (Ubuntu, Debian, Linux Mint) – Windows (10, 11) – Android

Web Development HTML - CSS - Jekyll - XML - XSLT - JavaScript - Gradio - MkDocs - GitHub Pages

Software Microsoft Office – Gate – Trados – Passolo – Adobe Photoshop – GIMP

Selected Publications

Interspeech Lucía Ormaechea, Nikos Tsourakis, Pierrette Bouillon, Benjamin Lecouteux and Didier Schwab. *Towards High-Quality LLM-Based*

Data for French Spontaneous Speech Simplification: an Exo-Refinement Approach. In: Proc. Interspeech 2025 2 To appear.

IJST 2024 Lucía Ormaechea and Nikos Tsourakis. Automatic Text Simplification for French: Model Fine-Tuning for Simplicity Assessment and

Simpler Text Generation 🖸 In: International Journal of Speech Technology 🖸 (IJST), Springer, vol. 27.

Jonathan Mutal and Lucía Ormaechea. TIM-UNIGE Translation into Low-Resource Languages of Spain for WMT24 🖸 In:

Proceedings of the Ninth Conference on Machine Translation (WMT), Miami (USA).

Lucía Ormaechea, Nikos Tsourakis, Didier Schwab, Pierrette Bouillon and Benjamin Lecouteux. Simplification Strategies in

LREC 2024 French Spontaneous Speech ☑ In: Proceedings of the Workshop on DeTermIt! Evaluating Text Difficulty in a Multilingual Context

답, within the Joint International Conference LREC-COLING 답, Torino (Italy).

Lucía Ormaechea, Nikos Tsourakis, Didier Schwab, Pierrette Bouillon and Benjamin Lecouteux. Simple, Simpler and Beyond: A

Fine-Tuning BERT-Based Approach to Enhance Sentence Complexity Assessment for Text Simplification 🗗 In: Proceedings of the

6th International Conference on Natural Language and Speech Processing 🗗 (ICNSLP), Trento (Italy).

SwissText Lucía Ormaechea and Nikos Tsourakis. Extracting Sentence Simplification Pairs from French Comparable Corpora Using a

2023 Two-Step Filtering Method & In: Proceedings of the 8th Swiss Text Analytics Conference , Neuchâtel (Switzerland).

Lucía Ormaechea, Pierrette Bouillon, Maximin Coavoux, Emmanuelle Esperança-Rodier, Johanna Gerlach *et al. PROPICTO*:

EAMT 2023 Developing Speech-to-Pictograph Translation Systems to Enhance Communication Accessibility 2 In: Proceedings of the 24th

Annual Conference of The European Association for Machine Translation & (EAMT), Tampere (Finland).

Academic Service

2023

2025 Machine Translation Summit (MT Summit) ♂ – Held at University of Geneva – Member of Local Organizing Team

2024 Corpus Journal No. 26 🗗 – Managing noise during computer processing of linguistic corpora – Peer Reviewer

Bruit de fond ou valeur ajoutée ? Gérer le bruit lors des traitements informatiques des corpus linguistiques ♂ – Seminar

jointly organized by Université Grenoble-Alpes and Sapienza Università di Roma – Member of Scientific Committee

5th Forum of the Association for Discourse Linguistics 🗗 – Held at Instituto de Cultura y Sociedad, Universidad de Navarra – Local Organizer

Scholarships & Awards

2020 Candoc Research Fellowship – Granted by the Swiss National Science Foundation (SNSF)

2013 Runner-up at the 4th Inter-University Debate Tournament ♂ - Universidad Pública de Navarra

Certifications

Getting Started With Mistral ☐

Online Course

DEEPLEARNING.AI

September 2024

Short course on Mistral's API features to enhance structured LLM responses (JSON mode, function calling and RAG).

3rd Advanced Language Processing School (ALPS) ☐

Winter School

Université Grenoble-Alpes – Naver Labs Europe

January 202.

Winter school featuring advanced lectures, social and poster sessions covering a wide range of hot topics in NLP.

Research Methods in Translation & Interpreting Studies (ReMeTIS) ☐ UNIVERSITÉ DE GENÈVE

Sequence Models 🗗

Coursera, DeepLearning.Al

Online Course

• Foundations & Data Analysis: qualitative and mixed methods, research ethics.

December 2022

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 $\bullet \, \text{Specific Research} \, \& \, \text{Scientific Communication Skills: corpus construction, quantitative data analysis, publication strategies.} \\$

Online Course
November 2022

Deep Learning Specialization (V): Recurrent Neural Networks – Long Short Term Memory – Attention Models.

Online Course

Coursera, DeepLearning.Al

October 2022

Deep Learning Specialization (III): Error Analysis in Machine Learning Systems - Performance Improvement Strategies.

Improving Deep Neural Networks: Hyperparameter Tuning, Regularization & Optimization \Box

Online Course

October 2022

Coursera, DeepLearning.Al

Deep Learning Specialization (II): Optimization Algorithms – Hyperparameter Tuning.

Neural Networks & Deep Learning □

Online Course

COURSERA, DEEPLEARNING.AI

October 2022

Deep Learning Specialization (I): Deep Learning Foundations – Neural Network Architectures.

33rd European Summer School in Logic, Language & Information (ESSLLI) ♂

Summer School

NATIONAL UNIVERSITY OF IRELAND GALWAY

August 2022

Interdisciplinary summer school involving courses and workshops in logic, linguistics and computer science.

2nd Advanced Language Processing School (ALPS) ☐

Winter School

Université Grenoble-Alpes – Naver Labs Europe

January 2022

Winter school featuring advanced lectures, social and poster sessions covering a wide range of hot topics in NLP.

Personal Data Protection 🗗

MOOC Course

INSTITUT NATIONAL DE RECHERCHE EN SCIENCES ET TECHNOLOGIES DU NUMÉRIQUE (INRIA)

May 2020

MOOC Course introducing data confidentiality regulations and privacy protection.

Introduction to Corpus Linguistics \square

MOOC Course

Université Grenoble-Alpes (UGA)

June 2019

MOOC Course introducing corpus linguistics and its many implementations in lexicology, discourse analysis and NLP.