

Lucía Ormaechea

Ph.D. Candidate · NLP Researcher · Computational Linguist

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| In 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.

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 the automatic simplification of spontaneous French.
 - · Authored numerous publications in high-impact conferences and journals.
- Contributed to BabelDr &: 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 during 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

• Translated **ENG > ESP commercial texts**: video transcriptions – travel articles – apartment reviews – client testimonials.

· Selected publications:

NEW YORK HABITAT

- 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 Sep. 2016 – Jun. 2017

Universidad de Navarra

• 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

Universidad de Navarra Sep. 2014 – Jun. 2018

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

LAST UPDATE: SEPTEMBER 23, 2025 LUCÍA ORMAECHEA · RÉSUMÉ

Teaching & Assistantships

M.A. in Translation, M.A. in Multilingual Communication Technology – *Teaching Assistant*, Localization, with L. Morado (2021, 2021-2025

2022, 2024, 2025), and S. Girletti (2023), Université de Genève

Workshops on Spanish Language – *Instructor*, Grammar courses for non-native undergraduate students, Universidad de 2016-2017

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

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 Rotterdam (Netherlands).

Lucía Ormaechea and Nikos Tsourakis. *Automatic Text Simplification for French: Model Fine-Tuning for Simplicity Assessment and Simpler Text Generation* 2 In: International Journal of Speech Technology 2 (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 d' 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 C In: Proceedings of the 8th Swiss Text Analytics Conference C, 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 © In: Proceedings of the 24th*

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

Academic Service

2025	Tenth Conference on I	Machine Translation	(WMT) ♂ - To	be held in Suzhou	(China) – I	Member of Prograr	n Committee
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2025 Machine Translation Summit d - Held at University of Geneva (Switzerland) - Member of Local Organizing Team

2024 Corpus Journal No. 26 C – 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 des corpus li

5th Forum of the Association for Discourse Linguistics 2 – Held at Instituto de Cultura y Sociedad, Universidad de Navarra (Spain) – Member of Local Organizing Team

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Scholarships & Awards.

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

2013 Runner-up at the 4th Inter-University Debate Tournament C? – 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 2023

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) ☐

Online Course

Université de Genève

December 2022

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

• Specific Research & Scientific Communication Skills: corpus construction, quantitative data analysis, publication strategies.

Online Course

Sequence Models ☐ Coursera, DeepLearning.Al

November 2022

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

Structuring Machine Learning Projects 2

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 ♂

Online Course

Coursera, DeepLearning.Al

October 2022

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

Neural Networks & Deep Learning ☐

Online Course

Coursera, DeepLearning.Al

October 2022

 $\label{thm:peep Learning Specialization (I): Deep Learning Foundations - Neural Network Architectures. \\$

33 $^{
m rd}$ European Summer School in Logic, Language & Information (ESSLLI) ${\ensuremath{\mathbb{C}}}$

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 [2]

MOOC Course

Université Grenoble-Alpes (UGA)

June 2019

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