

Javier García Gilabert

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Education



Master's Exchange Student (Erasmus)

Helsinki, FI

AALTO UNIVERSITY

Sep. 2023 - Jan. 2024

Took part in advanced Master's courses covering topics such as statistics, computer vision, complex networks, and computational genomics during my Master's exchange program.



Master in Artificial Intelligence

Barcelona, ES



POLYTECHNIC UNIVERSITY OF CATALONIA (UPC) & UNIVERSITY OF BARCELONA (UB) & UNIVERSITY OF ROVIRA I VIRGILI (URV)

2022 - 2024

- Interuniversity master (taught in English).
- Achieved a mean degree mark of 8.85/10.
- Master Thesis: *Improving Multilingual Neural Machine Translation by projecting language representations.*



Bachelor's degree in Data Science

Valencia, ES

POLYTECHNIC UNIVERSITY OF VALENCIA (UPV)

2018 - 2022

- Got the best student award in Data Science. Honor granted for achieving the highest marks in my university degree.
- Achieved a mean degree mark of 9.3/10.
- Subjects passed with honors: 13.
- Received a Special Mention for my Bachelor Thesis: *Image Captioning using pre-trained GPT-2 models.*

Experience



Research Engineer in MT

Barcelona, ES

BARCELONA SUPERCOMPUTING CENTER

Jan. 2024 - Present

Working as a research engineer in the Machine Translation Group at the Barcelona Supercomputing Center.

- Research assistant in Eloquence (European Project), ILENIA (Spanish National Project), AINA (Catalan Project).
- Developed Multilingual Neural Machine Translation models for the catalan language.
- Worked in low-resource machine translation languages.



Research assistant

Barcelona, ES

MT@UPC (MACHINE TRANSLATION GROUP AT UPC)

Oct. 2022 - Sep. 2023

National Spanish Project ROB-IN (PLEC2021-007859). The primary goal of this project was to create a robot designed for continuous personalized assistance with self-explanatory capabilities. My role in this project involved contributing to the development of the Natural Language Processing (NLP) component. Duties included:

- Developing the dialogue system of the robot using the RASA framework.
- Investigating the phenomenon of hallucinations in neural machine translation models.



Research Collaboration Fellowship

Valencia, ES

PRHLT (PATTERN RECOGNITION AND HUMAN LANGUAGE TECHNOLOGY RESEARCH CENTER)

Oct. 2021 - Aug. 2022

I received a collaboration fellowship with the PRHLT group from the Spanish Ministry of Education, where I focused on researching state-of-the-art encoder-decoder architectures for image captioning. This research led to the development of my bachelor's thesis under the supervision of Francisco Casacuberta Nolla.



Undergraduate Research Assistant

Valencia, ES

DEPARTMENT OF APPLIED STATISTICS, OPERATIONS RESEARCH AND QUALITY AT UPV

Oct. 2019 - Aug. 2022

My role was mainly as a data scientist, dealing with data collection, processing, analysis, and the application of machine learning techniques to derive meaningful insights and solutions.

Publications



Javier Garcia Gilabert, Aleix Sant, Carlos Escolano, Francesca De Luca Fornaciari, Audrey Mash, and Maite Melero. 2024. BSC Submission to the AmericasNLP 2024 Shared Task. *In Proceedings of the 4th Workshop on Natural Language Processing for Indigenous Languages of the Americas (AmericasNLP 2024)*, pages 143–149, Mexico City, Mexico. Association for Computational Linguistics.



Javier Garcia Gilabert, Carlos Escolano, and Marta R. Costa-Jussà. 2024. ReSeTOX: Re-learning attention weights for toxicity mitigation in machine translation. *In Proceedings of the 25th Annual Conference of the European Association for Machine Translation*, pages 37–58, Sheffield, England. European Association for Machine Translation.

Preprint **Javier Garcia Gilabert**, Carlos Escolano, Aleix Sant, Francesca De Luca Fornaciari, Audrey Mash, Xixian Liao, and Maite Melero. 2024. Investigating the translation capabilities of Large Language Models trained on parallel data only. *arXiv preprint arXiv:2406.09140*.

Awards and Grants

2022	Best Student award in Data Science , Honor granted for achieving the highest marks in my university degree.	UPV
2022	Beca Santander Estudios Progreso 2021-2022 , The "Becas Santander Progreso" program is a grant given by Banco Santander S.A., whose objective is to facilitate access to education for students with the best academic records at a national level who are pursuing official Bachelor's or Master's degree studies.	Banco Santander
2021	Awards to Graduates of the UPV with Best Academic Records , Honor granted for achieving the highest marks in the second academic year of my University degree.	UPV
2021	National Datathon Cajamar UniversityHack 2022 , Water prediction model presented in the Cajamar Water Footprint 2022 challenge of the national datathon University Hack 2022. We were able to arrive to the national final round.	Cajamar

Certificates

2023	DeepLearn 2023 summer: 10th International Gran Canaria School on Deep Learning ,	DeepLearn
2021	Improving Deep Neural Networks Hyperparameter Tuning, Regularization and Optimization ,	Coursera
2021	Custom Models, Layers, and Loss Functions with TensorFlow ,	Coursera
2021	Neural Networks and Deep Learning ,	Coursera
2021	Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning ,	Coursera
2019	Deep learning aplicado al análisis de señales e imagen ,	UPV
2017	First Certificate of English (FCE) ,	Cambridge

Skills

Programming	Python, R, LaTeX, Bash.
Frameworks	PyTorch, numpy, pandas, transformers.
Languages	Spanish (Native), Catalan (Native), English (Fluent).

Volunteering Activities

Mentor for international exchange students	UPV
MENTOR	2022
Assisting international exchange students in their adaptation to the university and the city of Valencia. As part of the university's MENTOR support program: https://www.upv.es/entidades/OPII/infoweb/pi/info/820230normali.html	
Mentor for new university students	UPV
PATU	2019-2021
Advising new Data Science students in their transition to the university, as part of PATU (Programa de Acción Tutorial): https://www.upv.es/perfiles/futuro-alumno/integra-patu-es.html	