

PERSONAL INFORMATION

Laura Pérez-Mayos

📍 PhD Student in Natural Language Processing. UPF, Barcelona

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🌐 <https://lpmayos.github.io>

ACADEMIC EDUCATION

2017 – 2021	PhD on Natural Language Processing UPF Universitat Pompeu Fabra, Barcelona, Spain Thesis title (provisional): In-depth exploration of the syntactic capabilities of modern language models for downstream applications
2019	9th Lisbon Machine Learning School (LxMLS 2019) IST Instituto Superior Técnico, Lisbon, Portugal ML and their application to NLP. These areas include but are not restricted to: Classification, Structured Prediction (sequences, trees, graphs), Deep Learning and Reinforcement Learning.
2015 – 2017	Master on Computer Vision UAB, UPC, UPF, UOC (60 ECTS) Universitat Autònoma de Barcelona, Universitat Politècnica de Catalunya, Universitat Pompeu Fabra, Universitat Oberta de Catalunya, Barcelona, Spain Thesis title: Improving the quality of video-to-language models by an optimized annotation of the training material
2014 – 2015	Master on Intelligent Interactive Systems UPF (60 ECTS) Universitat Pompeu Fabra, Barcelona, Spain Thesis title: Co-speech gesture generation for the humanoid robot REEM-C
2001 – 2005	Technical Engineer in Computer Science UPC (183.6 ECTS) Universitat Politècnica de Catalunya, Barcelona, Spain Thesis title: Theclick production guide, visual directory of companies

PROFESSIONAL EXPERIENCE

April 2021 – August 2021	Applied Scientist Intern, Amazon Web Services (AWS) https://aws.amazon.com/ Coherence modeling with Transformer-based language models.
October 2017 – Present	NLP Pre-doctoral Researcher http://taln.upf.edu Syntactic capabilities of modern language models. Web development for workshops and projects. Social media management.
July 2015 – September 2017	NLP Research assistant at TALN, UPF http://taln.upf.edu Word Sense Disambiguation. UIMA pipelines. Web development for workshops and projects.
May 2014 – September 2014	Web Architect at 4d-life http://4d-life.net Frontend and Backend Engineer. Analysis, architecture and development of web applications with Python and Javascript.

March 2013 – February 2014

CTO at Iskra Desenvolupament S.C.C.L.

<http://www.iskra.cat>

Agile leader and project manager. Analysis, design and development of web applications with Python and Plone.

March 2010 – January 2013

Web applications developer at UPCnet Inc.

<http://www.upcnet.es>

Analysis, design and development of web applications with Python and Plone. Analysis, design and development of e-Government applications.

February 2008 – August 2009

Web applications developer at Guell Consulting Technologies Inc.

<http://www.guellconsulting.com>

Analysis, design and development of web applications with Python and Plone.

February 2006 – January 2008

Web developer at SAC Disseny i Comunicacions Inc.

<http://activaweb.com>

Analysis, design and development of web applications based on ASP / MySQL implementation of own content manager.

RESEARCH INTERESTS

Syntactic capabilities of modern language models.

Deep Learning for natural language processing.

Natural language processing for social good.

PUBLICATIONS

- 2021 Pérez-Mayos, Laura; Ballesteros, Miguel; Wanner, Leo. How much pretraining data do language models need to learn syntax?. In proceedings of the 2021 Conference on Empirical Methods in Natural Language Processing (EMNLP 2021). Punta Cana, Dominican Republic.
- 2021 Pérez-Mayos, Laura; Táboas García, Alba; Mille, Simon; Wanner, Leo. Assessing the Syntactic Capabilities of Transformer-based Multilingual Language Models. In findings of the Association for Computational Linguistics (ACL 2021). Bangkok, Thailand.
- 2021 Pérez-Mayos, Laura; Carlini, Roberto; Ballesteros, Miguel; Wanner, Leo. On the evolution of syntactic information encoded by BERT's contextualized representations. In proceedings of the European Chapter of the Association for Computational Linguistics (EACL 2021). Kyiv, Ukraine.
- 2019 Pérez-Mayos, Laura; Farrús, Mireia; Adell, Jordi. Part-of-Speech and Prosody-based Approaches for Robot Speech and Gesture Synchronization. Journal of Intelligent & Robotic Systems. <https://doi.org/10.1007/s10846-019-01100-3>
- 2018 Pérez-Mayos, Laura; Sukno, Federico M.; Wanner, Leo. Improving the Quality of Video-to-Language Models by Optimizing Annotation of the Training Material. International Conference on Multimedia Modeling. 1 ed. Bangkok: Cham Springer International; 2018. p. 279-290.

ACADEMIC SERVICES

Web Chair for COLING 2020.

Reviewer for COLING, EMNLP, EACL.

Secondary reviewer for NAACL-HLT 2019.

Teaching assistant in the Computational Logic subject of the Computer Science Degree. DTIC. Universitat Pompeu Fabra, Barcelona, Spain. Academic year: 2014-2015.

INVITED TALKS

TALN Research Seminar (Universitat Pompeu Fabra, Barcelona, Spain). Host: Monica Domínguez. 9th Sep 2020. Topic: On the evolution of syntactic information encoded by BERT's contextualized representations.

TALN Research Seminar (Universitat Pompeu Fabra, Barcelona, Spain). Host: Monica Domínguez. 12th Dec 2018. Topic: Jupyter Notebook by example. Basic NLP with spaCy.

COMMUNITY

PyBCN President of PyBCN, the Barcelona Python Association, with more than 3k members on Meetup. Our mission is to promote, educate and advance the local Python community through monthly meetups, practice sessions and specific events like PyDay and PyData.

PyLadiesBCN Coordinator of PyLadiesBCN. Our mission is to promote, educate and advance a diverse Python community through outreach, education, conferences and events.

LANGUAGES

Mother tongue(s) Catalan and Spanish

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
German	A2	A2	A2	A2	A2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2: Proficient user
Common European Framework of Reference (CEF) level

PERSONAL SKILLS

Computing Linux, OSX. Python, Java, Matlab. ROS. Neo4j, OrientDB, Solr, Mongo. HTML, CSS, JS.

Scuba diving SSI Stress & Rescue diver. 2020. Barcelona.
SSI React Right. 2020. Barcelona.
PADI Advanced Open Water Certificate. 2018. Thailand.
PADI Open Water Certificate. 2016. Barcelona.

Interests Books. Oceans. Mountains. Photography. Cycling.