Miguel Ballesteros. PhD – Curriculum Vitae

Principal Applied Scientist - Amazon Web Services.

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EMPLOYMENT

- Principal Applied Scientist. Amazon Web Services. New York City, New York, United States.
  October 2021 - current

- Senior Applied Scientist. Amazon Web Services. New York City, New York, United States.
  July 2019 - October 2021

- Research Scientist/Research Staff Member– IBM Research, New York, United States.
  October 2016 - July 2019

- Assistant Professor – Department of Information and Communication Technologies, at Pompeu Fabra University, in Barcelona. Spain.
  January 2013 - October 2016

- Visiting Postdoctoral researcher and adjunct instructor/lecturer at the Language Technologies Institute. Carnegie Mellon University. Pittsburgh, U.S.
  March 2015 – April 2016

- PhD Student. Researcher. Department of Software Engineering and Artificial Intelligence. Complutense University of Madrid. Spain.
  September 2010-December 2012.

- Scholarship grant. University Consortium Collaboration Grant: UNED, UCM, UC3M. Spain.
  May 2010-September 2010.

- Scholarship grant. Department of Software Systems and Computation. Complutense University of Madrid, Spain. Granted by the Spanish Ministry of Education and Science.
  January 2009 - June 2009.

QUALIFICATIONS

- **PhD** in Computational Linguistics (Computer Science), Complutense University of Madrid, Spain.
  Thesis title: Analyzing, enhancing, optimizing and applying dependency analysis
  December 2012.
  This is an European doctoral program. The thesis needs to pass an international evaluation procedure by field experts who have never worked with the candidate. This program also required a research stay in a different European country; I did mine in Sweden, Uppsala University (see Research Stays section).

- **Master** of Science (60 ECTS). Research in Computer Science, NLP Project, Complutense University of Madrid, Spain.
  Thesis title: Mejora de la precisión para el análisis de dependencias usando maltparser para el castellano
  June 2010.
  This may be considered as the first year of the PhD studies.

- **Computer Science Engineering.** Complutense University of Madrid, Spain.
  Thesis title: TALFi: una herramienta para teoría de autómatas y lenguajes formales.
  June 2009.
  This is a 5 year degree (350 ECTS). In the American system it would be equivalent to Bachelor and a Master with a final project.

LANGUAGES

- Spanish (native)
- English (fluent)
- Italian (basic)

RESEARCH STAYS

- 2014. Carnegie Mellon University, Pittsburgh, U.S. Supervised by Noah A. Smith and Chris Dyer. 1st October 2014 - 9th November 2014.

- 2013. Singapore University of Technology and Design, Singapore. Supervised by Yue Zhang. 14th June 2013 - 25th July 2013.

- 2012. Uppsala University, Sweden. Supervised by Joakim Nivre. Phd Student. 19th March 2012 - 19th April 2012.

- 2011. Uppsala University, Sweden. Supervised by Joakim Nivre. Phd Student. 3rd October 2011 - 23rd December 2011.

RESEARCH INTERESTS

- Deep learning and neural network models for natural language processing.
- Language models
- Summarization
- Information Extraction
- Document understanding

PUBLICATIONS

JOURNAL PAPERS

- Eliyahu Kiperwasser and **Miguel Ballesteros** 2018. Scheduled Multi-Task Learning: From Syntax to Translation. Transactions of the Associations for Computational Linguistics (TACL).

- **Miguel Ballesteros**, Chris Dyer, Yoav Goldberg and Noah A. Smith 2016. Greedy Transition-based Dependency Parsing with Stack-LSTMs. Computational Linguistics. 43:2 MIT Press.

- Waleed Ammar, George Mulcaire, **Miguel Ballesteros**, Chris Dyer and Noah Smith 2016. Many Languages, One Parser. Transactions of the Associations for Computational Linguistics (TACL).

- **Miguel Ballesteros**, Bernd Bohnet, Simon Mille and Leo Wanner. 2015. Data-Driven Deep-Syntactic Dependency Parsing. Natural Language Engineering Journal. Cambridge University Press.

- **Miguel Ballesteros** and Joakim Nivre. 2014. MaltOptimizer: Fast and Effective Parser Optimization. Natural Language Engineering Journal. Cambridge University Press.

- **Miguel Ballesteros** and Joakim Nivre. 2013. Going to the Roots of Dependency Parsing. Computational Linguistics 39:1

CONFERENCE PROCEEDINGS (REFEREED)

2023

- Sharon Levy, Neha Anna John, Ling Liu, Yogarshi Vyas, Jie Ma, Yoshinari Fujinuma, **Miguel Ballesteros**, Vittorio Castelli, Dan Roth. Comparing Biases and the Impact of Multilingual Training across Multiple Languages. In Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP 2021). Singapore.

- Karthikeyan K, Yogarshi Vyas, Jie Ma, Giovanni Paolini, Neha Anna John, Shuai Wang, Yassine Benajiba, Vittorio Castelli, Dan Roth, **Miguel Ballesteros**. Taxonomy Expansion for Named Entity Recognition. In Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP 2021). Singapore.

- Tyler A Chang, Kishaloy Halder, Neha Anna John, Yogarshi Vyas, Yassine Benajiba, **Miguel Ballesteros**, Dan Roth. Characterizing and Measuring Linguistic Dataset Drift. In Proceedings of the Association for Computational Linguistics (ACL 2023), Toronto, Canada.

- Muhammad Khalifa, Yogarshi Vyas, Shuai Wang, Graham Horwood, Sunil Mallya, **Miguel Ballesteros**. *Contrastive Training Improves Zero-Shot Classification of Semi-structured Documents*. In Proceedings of the Association for Computational Linguistics - Findings (ACL 2023). Toronto, Canada.

- Katerina Margatina, Shuai Wang, Yogarshi Vyas, Neha Anna John, Yassine Benajiba, **Miguel Ballesteros.** *Dynamic Benchmarking of Masked Language Models on Temporal Concept Drift with Multiple Views*. In Proceedings of the European Chapter of the Association for Computational Linguistics (EACL 2023), Dubrovnik, Croatia.

- Ming Shen, Jie Ma, Shuai Wang, Yogarshi Vyas, Kalpit Dixit, Miguel Ballesteros, Yassine Benajiba. *Simple Yet Effective Synthetic Dataset Construction for Unsupervised Opinion Summarization*. In Proceedings of the European Chapter of the Association for Computational Linguistics - Findings (EACL 2023), Dubrovnik, Croatia.

2022

- Vishakh Padmakumar, Leonard Lausen, **Miguel Ballesteros**, Sheng Zha, He He, George Karypis. Exploring the Role of Task Transferability in Large-Scale Multi-Task Learning. In Proceedings of the North American Chapter of the Association for Computational Linguistics (NAACL 2022). Seattle, USA.

- Jie Ma, **Miguel Ballesteros**, Srikanth Doss, Rishita Anubhai, Sunil Mallya, Yaser Al-Onaizan, Dan Roth. Label Semantics for Few-shot Named Entity Recognition. In Proceedings of the North American Chapter of the Association for Computational Linguistics - Findings (ACL 2022). Dublin, Ireland.

- Fei-Tzin Lee, **Miguel Ballesteros**, Feng Nan, Kathleen McKeown. Using Structured Content Plans for Fine-grained Syntactic Control in Pretrained Language Model Generation. In Proceedings of the International Conference on Computational Linguistics (Coling 2022). Gyeongju, South Korea.

2021

- Muhammad Khalifa, **Miguel Ballesteros,** Kathleen McKeown. A Bag of Tricks for Dialogue Sumamrization. In Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP 2021). Punta Cana, Dominican Republic.

- Laura Pérez-Mayos, **Miguel Ballesteros,** Leo Wanner. How much pertaining data do language models need to learn syntax?. In Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP 2021). Punta Cana, Dominican Republic.

- Emily Allaway, Shuai Wang, **Miguel Ballesteros**. Sequential Cross-Document Corereference Resolution. In Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP 2021). Punta Cana, Dominican Republic.

- Laura Pérez-Mayos, Roberto Carlini, **Miguel Ballesteros**, Leo Wanner. 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). Virtual Conference.*

- Kailash Saravanakumar, **Miguel Ballesteros**, Muthu Kumar Chandrasekaran, Kathleen McKeown. *Event-Driven News Stream Clustering using Entity-Aware Contextual Embeddings. In Proceedings of the European Chapter of the Association for Computational Linguistics (EACL 2021). Virtual Conference.*

- Yogarshi Vyas, **Miguel Ballesteros.** *Linking Entities to Unseen Knowledge Bases with Arbitrary Schemas. In Proceedings* of the North American Chapter of the Association for Computational Linguistics (NAACL-HLT 2021). Virtual Conference.

2020

- Jie Ma, Shuai Wang, Rishita Anubhai, **Miguel Ballesteros**, Yaser Al-Onaizan. *Resource-Enhanced Neural Model for Event Argument Extraction.* In Proceedings of the Conference on Empirical Methods in Natural Language Processing - Findings (EMNLP 2020). Virtual Conference.

- **Miguel Ballesteros,** Rishita Anubhai, Shuai Wang, Nima Pourdamghani, Yogarshi Vyas, Jie Ma, Parminder Bhatia, Kathleen McKeown, Yaser Al-Onaizan. *Severing the Edge Between Before and After: Neural Architectures for Temporal Ordering of Events.* In Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP 2020). Virtual Conference.

- Kasturi Bhattacharjee, **Miguel Ballesteros**, Rishita Anubhai, Smaranda Muresan, Jie Ma, Faisal Ladhak,Yaser Al-Onaizan. *To BERT or Not to BERT: Comparing Task-specific and Task-agnostic Semi-supervised Approaches for Sequence Tagging.* In Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP 2020). Virtual Conference.

- Ramón F Astudillo, **Miguel Ballesteros,** Tahira Naseem, Austin Blodgett, Radu Florian. *Transition-Based Parsing with Stack-Transformers.* In Proceedings of the Conference on Empirical Methods in Natural Language Processing - Findings (EMNLP 2020). Virtual Conference.

- Ethan Wilcox, Peng Qian, Richard Futrell, Ryosuke Kohita, Roger Levy, **Miguel Ballesteros.** *Structural Supervision Improves Few-Shot Learning and Syntactic Generalization in Neural Language Models.* In Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP 2020). Virtual Conference.

2019

- Tahira Naseem, Abhishek Shah, Hui Wan, Radu Florian, Salim Roukos and **Miguel Ballesteros**. *Rewarding Smatch: Transition-Based AMR Parsing with Reinforcement Learning.* In Proceedings of the Association for Computational Linguistics (ACL 2019). Florence, Italy

- Richard Futrell, Ethan Wilcox, Takashi Morita, Peng Qian, **Miguel Ballesteros**, Roger Levy. *Neural Language Models as Psycholinguistic Subjects: Representations of Syntactic State. In Proceedings* of the North American Chapter of the Association for Computational Linguistics (NAACL-HLT 2019). Minneapolis, US

- Ethan Wilcox, Peng Qian, Richard Futrell, **Miguel Ballesteros**, Roger Levy. S*tructural Supervision Improves Learning of Non-Local Grammatical Dependencies. In Proceedings* of the North American Chapter of the Association for Computational Linguistics (NAACL-HLT 2019). Minneapolis, US

- Miryam de Lhoneux, **Miguel Ballesteros**, Joakim Nivre *Recursive Subtree Composition in LSTM-Based Dependency Parsing. In Proceedings* of the North American Chapter of the Association for Computational Linguistics (NAACL-HLT 2019). Minneapolis, US

2018

- Hui Wan, Tahira Naseem, Young-Suk Lee, Vittorio Castelli and **Miguel Ballesteros**. *IBM Research at the CoNLL 2018 Shared Task on Multilingual Parsing. In Proceedings of the CoNLL 2018 Shared Task: Multilingual Parsing from Raw Text to Universal Dependencies. (CoNLL 2018). Brussels, Belgium*

- Graeme Blackwood, **Miguel Ballesteros**, Todd Ward. *Multilingual Neural Machine Translation with Task-Specific Attention. In Proceedings of the International Conference on Computational Linguistics. (COLING 2018). Santa Fe, New Mexico. US*

- Francesco Barbieri, Jose Camacho-Collados, Francesco Ronzano, Luis Espinosa Anke, **Miguel Ballesteros**, Valerio Basile, Viviana Patti and Horacio Saggion
SemEval 2018 Task 2: Multilingual Emoji Prediction. *In Proceedings of The 12th International Workshop on Semantic Evaluation. 2018. Melbourne, Australia*

- Jerry Quinn and **Miguel Ballesteros.** *Pieces of Eight: 8-bit Neural Machine Translation.* In proceedings of the North American Chapter of the Association for Computational Linguistics- Industrial Track (NAACL-HLT 2018). New Orleans, US

- Francesco Barbieri; **Miguel Ballesteros,** Francesco Ronzano and Horacio Saggion. *Multimodal Emoji Prediction.* In proceedings of the Short Papers of the North American Chapter of the Association for Computational Linguistics- Human Language Technologies (NAACL-HLT 2018). New Orleans, US

2017

- **Miguel Ballesteros** and Xavier Carreras. 2017. *Arc-Standard Spinal Parsing with Stack-LSTMs.* In Proceedings of the Conferences on Parsing Technologies. (IWPT 2017), Pisa, Italy.

- **Miguel Ballesteros** and Yaser Al-Onaizan. 2017. *AMR Parsing Using Stack-LSTMs.* In Proceedings of the Conference on Empirical Methods in Natural Language Processing. (EMNLP 2017), Copenhagen, Denmark.

- Francesco Barbieri, Luis Espinosa Anke, Joan Soler, **Miguel Ballesteros** and Horacio Saggion. *Towards the understanding of gaming audiences by modeling Twitch emotes.* Third Workshop on Noisy User-generated Text (W-NUT 2017 at EMNLP 2017).
Best paper award.

- Adhiguna Kuncoro; **Miguel Ballesteros**; Lingpeng Kong; Chris Dyer; Graham Neubig; Noah A. Smith
What Do Recurrent Neural Network Grammars Learn About Syntax? In Proceedings of the European Chapter of the Association for Computational Linguistics. (EACL 2017), Valencia, Spain
Outstanding paper award.

- Francesco Barbieri; **Miguel Ballesteros** and Horacio Saggion. *Are Emojis Predictable?.* In Proceedings of the Short Papers for the European Chapter of the Association for Computational Linguistics. (EACL 2017), Valencia, Spain

2016

- Jacob Buckman, **Miguel Ballesteros** and Chris Dyer. 2016. *Transition-Based Dependency Parsing with Heuristic Backtracking.* In Proceedings of the Conference on Empirical Methods in Natural Language Processing. (EMNLP 2016)

- **Miguel Ballesteros**, Yoav Goldberg, Chris Dyer and Noah A. Smith. 2016. *Training with Exploration Improves a Greedy Stack LSTMParser*. In Proceedings of the Conference on Empirical Methods in Natural Language Processing. (EMNLP 2016)

- **Miguel Ballesteros** and Leo Wanner. *A Neural Network Architecture for Multilingual Punctuation Generation*. In Proceedings of the Conference on Empirical Methods in Natural Language Processing. (EMNLP 2016)

- Adhiguna Kuncoro, **Miguel Ballesteros**, Lingpeng Kong, Chris Dyer and Noah A. Smith. *Distilling an Ensemble of Greedy Dependency Parsers into One MST Parser*. In Proceedings of the Conference on Empirical Methods in Natural Language Processing. (EMNLP 2016), Austin, Texas, US.

- Swabha Swayamdipta, **Miguel Ballesteros**, Chris Dyer and Noah A. Smith 2016. *Greedy, Joint Syntactic-Semantic Parsing with Stack LSTMs*. In proceedings of Conference of Natural Language Learning (CoNLL 2016). Berlin, Germany

- Guillaume Lample, **Miguel Ballesteros**, Kazuya Kawakami, Sandeep Subramanian and Chris Dyer. 2016. *Neural Architectures for Named Entity Recognition*. In proceedings of the North American Chapter of the Association for Computational Linguistics- Human Language Technologies (NAACL-HLT 2016). San Diego, US

- Chris Dyer, Adhiguna Kuncoro, **Miguel Ballesteros** and Noah Smith 2016. *Recurrent Neural Network Grammars*. In proceedings of the North American Chapter of the Association for Computational Linguistics- Human Language Technologies (NAACL-HLT 2016). San Diego, US

- Luz Rello, **Miguel Ballesteros**, Abdullah Ali, Miquel Serra, Daniela Alarcón Sánchez and Jeffrey P. Bigham 2016. *Dytective: Detecting Risk of Dyslexia with a Game*. (PervasiveHealth-2016).

2015

- **Miguel Ballesteros**, Chris Dyer and Noah Smith 2015. *Improved Transition-Based Parsing by Modeling Characters instead of Words with LSTMs*. In proceedings of the Empirical Methods for Natural Language Processing (EMNLP 2015). Lisbon, Portugal

- **Miguel Ballesteros** and Xavier Carreras 2015. *Transition-Based Spinal Parsing*. In proceedings of Conference on Natural Language Learning (CoNLL 2015). Beijing, China

- Luz Rello, **Miguel Ballesteros** and Jeff Bigham. 2015. *A Spellchecker for Dyslexia*. In proceedings of the ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2015). Lisbon, Portugal

- Chris Dyer, **Miguel Ballesteros**, Wang Ling, Austin Matthews and Noah Smith 2015. *Transition-Based Dependency Parsing with Stack Long Short-Term Memory*. In proceedings of Association for Computational Linguistics Conference (ACL-IJCNLP 2015). Beijing, China

- **Miguel Ballesteros**, Bernd Bohnet, Simon Mille and Leo Wanner 2015. *Data-driven sentence generation with non-isomorphic trees*. In proceedings of the North American Chapter of the Association for Computational Linguistics- Human Language Technologies (NAACL - HLT 2015). Denver, US

- Juan Soler-Company, **Miguel Ballesteros**, Bernd Bohnet, Simon Mille and Leo Wanner. 2015. *Visualizing Deep-Syntactic Parser Output*. In proceedings of Demonstrations of the North American Chapter of the Association for Computational Linguistics- Human Language Technologies (NAACL HLT 2015). Denver, US

- Luz Rello and **Miguel Ballesteros** 2015. *Detecting Readers with Dyslexia Using Machine Learning with Eye Tracking Measures.* In proceedings of Web4All Conference (W4A2015). Florence, Italy

2014

- **Miguel Ballesteros** and Bernd Bohnet 2014. *Automatic Feature Selection for Agenda-Based Dependency Parsing.* In proceedings of International Conference on Computational Linguistics (COLING 2014). Dublin, Ireland

- **Miguel Ballesteros**, Bernd Bohnet, Simon Mille and Leo Wanner 2014. *Deep-Syntactic Parsing.* In proceedings of the International Conference on Computational Linguistics (COLING 2014). Dublin, Ireland

- **Miguel Ballesteros**, Simon Mille and Leo Wanner 2014. *Classifiers for Data-Driven Deep Sentence Generation.* In proceedings of International Conference of Natural Language Generation (INLG 2014). Philadelphia, US

2013

- **Miguel Ballesteros** 2013. *Effective Morphological Feature Selection with MaltOptimizer at the SPMRL 2013 Shared Task.* In Proceedings of the EMNLP 2013 Workshop of Statistical Parsing of Moprhologically-Rich Languages (SPMRL 2013), Seattle, US

- **Miguel Ballesteros** and Roberto Carlini. 2013. *MaltDiver: A Transition-Based Parser Visualizer.* In Proceedings of the Demonstrations of the International Joint Conference on Natural Language Processing (IJCNLP 2013), Nagoya, Japan.

- Muntsa Padró, **Miguel Ballesteros**, Hector Martínez and Bernd Bohnet. 2013. *Finding dependency parsing limits over a large Spanish corpus.* In proceedings of the short papers of the International Joint Conference on Natural Language Processing (IJCNLP 2013), Nagoya, Japan.

- **Miguel Ballesteros**, Simon Mille and Alicia Burga. 2013. *Exploring Morphosyntactic Annotation Over a Spanish Corpus for Dependency Parsing.* In proceedings of the 2nd international conference on Dependency Linguistics (Depling 2013)

2012

- **Miguel Ballesteros** and Joakim Nivre. 2012. *MaltOptimizer: A System for MaltParser Optimization.* In proceedings of the 8th international conference on Language Resources and Evaluation (LREC 2012)

- **Miguel Ballesteros** and Joakim Nivre. 2012. *MaltOptimizer: An Optimization Tool for MaltParser.* In proceedings of the demonstrations of the 13th Conference of the European Chapter of the Association for computational Linguistics (EACL 2012). This is the *demo* paper of the previous item.

- **Miguel Ballesteros**, Jesús Herrera, Virginia Francisco and Pablo Gervás. 2012. *Inferring the Scope of Negation in Biomedical Documents.* In proceedings of the 13th International Conference on Intelligent Text Processing and Computational Linguistics (CICLING 2012)

- Jorge Carrillo de Albornoz, Laura Plaza, Alberto Díaz, **Miguel Ballesteros**. 2012. *UCM-I: A Rule-based Syntactic Approach for Resolving the Scope of Negation.* In proceedings of the the First Joint Conference on Lexical and Computational Semantics (*SEM 2012).

- Alberto Díaz, **Miguel Ballesteros**, Jorge Carrillo de Albornoz and Laura Plaza. 2012. *UCM at TREC-2012: Does negation influence the retrieval of medical reports?*. Proceedings of the TREC 2012 Medical Records Track.

- **Miguel Ballesteros**, Alberto Díaz, Virginia Francisco, Pablo Gervás, Laura Plaza, Jorge Carrillo de Albornoz. 2012. *UCM-2: a Rule-Based Approach to Infer the Scope of Negation via Dependency Parsing.* In proceedings of the the First Joint Conference on Lexical and Computational Semantics (*SEM 2012)

2011

- Pablo Gervás and **Miguel Ballesteros**. 2011. *A Proposal for a Spanish Surface Realization Shared Task*. Generation Challenges 2011 Session at 13th European Workshop on Natural Language Generation (ENLG 2011)

- **Miguel Ballesteros**, Virginia Francisco, Alberto Díaz, Jesús Herrera, and Pablo Gervás. 2011. I*nferring the Scope of Speculation Using Dependency Analysis*. In proceedings of the International Conference on Knowledge Discovery and Information Retrieval (KDIR 2011)

2010

- **Miguel Ballesteros**, Susana Bautista and Pablo Gervás. 2010 *Text Simplification Using Dependency Parsing for Spanish*. In proceedings of the International Conference on Knowledge Discovery and Information Retrieval (KDIR 2010)

- **Miguel Ballesteros**, Jesús Herrera, Virginia Francisco and Pablo Gervás. 2010. *Giving Shape to an N-Version Dependency Parser*. In proceedings of the International Conference on Knowledge Discovery and Information Retrieval (KDIR 2010)

- **Miguel Ballesteros**, Jesús Herrera, Virginia Francisco and Pablo Gervás. 2010. *A Feasibility Study on Low Level Techniques for Improving Parsing Accuracy for Spanish Using Maltparser*. In proceedings of the 6th Hellenic Conference on Artificial Intelligence (SETN 2010)

- **Miguel Ballesteros**, Jesús Herrera, Virginia Francisco and Pablo Gervás. 2010.*Towards an N-Version Dependency Parser*. In proceedings of the 13th International Conference on Text, Speech and Dialogue (TSD 2010)

- **Miguel Ballesteros**, Raúl Martín and Belén Díaz-Agudo. 2010. *JADAWeb: A CBR System for Cooking Recipes.* In proceedings of the 18th International Conference on Case-based Reasoning. Computer Cooking Contest Workshop (ICCBR 2010).
  Best Student paper award

ACADEMIC SUPERVISION

Post-graduate Supervision

- Supervisor of **Laura Perez Mayos'** Doctoral Thesis (co-supervised with Leo Wanner). Phd Thesis. In-depth exploration of the syntactic capabilities of auto-encoding language modes for downstream applications. Universitat Pompeu Fabra, Barcelona, Spain. **2022**

Undergraduate Supervision

- Supervisor of 3 final Degree Project of undergraduate students Pompeu Fabra University, in Barcelona, Spain. 2013-2015

TEACHING EXPERIENCE

- Carnegie Mellon University, Pittsburgh, United States. Co-instructor of the Algorithms for Natural Language Processing Course 11711. With Chris Dyer and Robert Frederking. Academic Year: 2015-2016

- University Pompeu Fabra, Barcelona, Spain. Instructor of (1) Discrete Mathematics and Graph Theory and main instructor of (2) Software Engineering for Web Applications. Computer Science Degree for the Department of Information and Communication Technologies. Academic Year: 2014-2015

- University Pompeu Fabra, Barcelona, Spain. Instructor of (1) Discrete Mathematics and Graph Theory, main instructor of (2) Software Engineering for Web Applications, and instructor of (3) Databases. Computer Science Degree. Academic Year: 2013-2014

- University Pompeu Fabra, Barcelona, Spain. Instructor of (1) Discrete Mathematics and Graph Theory, main instructor of (2) Software Engineering for Web Applications, and instructor of (3) Databases. Computer Science Degree. Academic Year: 2012-2013

- Universidad Complutense de Madrid, Spain. Teaching assistant in the Software Engineering subject (Ingeniería del Software) of the Computer Science Degree. Academic year: 2011-2012.

- Universidad Complutense de Madrid, Spain. Online courses tutor for the Department of Software Engineering and Artificial Intelligence. Academic year: 2011-2012.

SENIOR ACADEMIC SERVICES

Journals

- **Action Editor of** Transactions for the Association for Computational Linguistics (TACL Journal). 2019 - present

- **Action Editor of Computational Linguistics Journal.** 2020 - present

Conferences

- **Senior Area Chair.** Empirical Methods for Natural Language Processing (EMNLP 2022)

- **Senior Area Chair.** North American Chapter of the Association for Computational Linguistics (NAACL 2022)

- **Tutorial Chair.** North American Chapter of the Association for Computational Linguistics. (NAACL 2022)

- **Area chair** of Tagging, Chunking, Syntax and Parsing of the Empirical Methods for Natural Language Processing Conference (EMNLP 2019).

- **Area chair.** International Conference of Computational Linguistics (COLING 2018).

- **Area chair for ACL Rolling Review.** 2021 - present.

- **Area chair** of Tagging, Chunking, Syntax and Parsing of the International Association for Computational Linguistics Conference (ACL 2016).

Committees

- External Reviewer of Yiqing Zhang's Master Thesis. University of Melbourne, Australia. November 2018.

- Member of Kepa Bengoetxea's PhD examination committee. [Dependency Parsing for Basque]. Basque Country University, San Sebastian, Spain. 16th December 2014.

- Reviewer for Spanish National Projects. MICINN-ANEP research projects

Conference and Workshop Organization

- **Tutorial Chair.** North American Chapter of the Association for Computational Linguistics (NAACL 2022)

- Organizer. Workshop on the Relevance of Linguistic Structure in Natural Language Processing (ACL 2018)

AWARDS

- **Selected as one of the Best Reviewers (Best Reviewer Award).**
  Conference on Empirical Methods in Natural Language Processing. 2018.

- **Outstanding paper award.** What do Recurrent Neural Network Grammars Learn about Syntax? European Chapter of the Association for Computational Linguistics. April 2017

- **Best paper award.** Towards the understanding of gaming audiences by modeling Twitch emotes. Third Workshop on Noisy User-generated Text (W-NUT 2017 at EMNLP 2017). September 2017

- Semi-Finalist of the international category of the Robotics for Good Awards www.roboticsforgood.ae with the team Change Dyslexia – Dytective: Detecting Risk of Dyslexia with a Game: https://www.roboticsforgood.ae/finals/game-detect-dyslexia-scale

- **Best Student Paper Award.** JADAWeb: A CBR System for Cooking Recipes. In Proceedings of the Computer Cooking Contest Workshop at the 18th International Conference on Case-based Reasoning. (CCC-ICCBR 2010).

PARTICIPATION IN EUROPEAN PROJECTS

- MULTISENSOR: Mining and Understanding of multilingual content for intelligent sentiment enriched context and social oriented interpretation. (Program: FP7-ICT-610411. European Union)

- KRISTINA: A knowledge based information agent with social competence and human interaction capabilities. (Program: H2020-645012-RIA. European Union)

PARTICIPATION IN MIT-IBM AI LAB PROJECTS

- Co-Pi of Hierarchically structured symbolic architectures with neural control for robust and human-like natural language parsing with Prof. Roger Levy. Exploratory Proposal. Funded.

INVITED TALKS

- Research Seminar - Guest Lecture at Columbia University, Invited by Kathleen Mckeown. New York, United States. November 2022.

- Invited speaker for the Automatic Summarization for Creative Writing workshop at COLING 2022, Gyeongju, Republic of Korea. October 2022.

- Research Seminar at Spain AI, Spain (Virtual). January 2022.

- Research Seminar at Uppsala University, Sweden (Virtual). September 2021.

- Research Seminar at University Politecnica de Catalunya, Spain (Virtual). September 2020.

- Research Seminar at Xerox Research Centre, France. Host: Xavier Carreras. September 2016.
  Topic: Transition-based Natural Language Processing.

- UPF-DTIC Research Seminar (Universitat Pompeu Fabra, Barcelona, Spain). Host: Leo Wanner. May 2016. Topic: Deep Learning for Transition-based Natural Language Processing.

- Research Seminar at IBM Watson. Host: Yaser Al-onaizan. April 2016.
  Topic: Transition-based Natural Language Processing.

- Research Seminar at IBM Almaden. Host: Laura Chiticariu. March 2016. Topic: Transition-based Natural Language Processing.

- Research Seminar at Google New York. Host: Slav Petrov. March 2016.
  Topic: Transition-based Natural Language Processing.

- Research Seminar at Carnegie Mellon University. Host: Alan Black. March 2016.
  Topic: Transition-based Natural Language Processing.

- Research Seminar at Microsoft Research Redmond. Host: Chris Quirk. March 2016. Topic: Greedy Transition-based Dependency Parsing with Stack-LSTMs.

- Research Seminar at Microsoft Research Redmond. Host: Chris Quirk. October 2015. Topic: Greedy Transition-based Dependency Parsing with Stack-LSTMs.

- Seminar at the University of Washington. Host: Noah Smith. October 2015. Topic: Greedy Transition-based Dependency Parsing with Stack-LSTMs.

- CLSP student seminar. Johns Hopkins University. Host: Jason Eisner. September 2015. Topic: Greedy Transition-based Dependency Parsing with Stack-LSTMs.

- Seminars of the IXA Research Group. Basque Country University, Spain. Host: Koldo Gojenola. December 2014. Topic: Going to the Roots of Dependency Parsing.

- Machine Learning Lunch Seminars. Carnegie Mellon University. Host: Noah A. Smith. October 2014. Topic: Going to the Roots of Dependency Parsing.

- Seminars of the TALP Research Group. Universitat Politècnica de Catalunya, Spain. Host: Xavier Carreras. April 2014. Topic: Going to the Roots of Dependency Parsing.

- Seminars at the Singapore University of Technology and Design, Singapore. Host: Yue Zhang. July 2013. Topic: Deep-Syntacting Parsing [Parsing into Deeper Syntactic Dependencies].

- Seminars of the Department of Linguistics and Philology, Uppsala University, Sweden. Host: Joakim Nivre. March 2012. Topic: MaltOptimizer: A System for MaltParser Optimization.

- Department of Computer Science, Stockholm University, Kista, Sweden. Host: Hercules Dalianis. October 2011. Topic: Enhancing and Applying Dependency Analysis in Different Topics: Negation, Speculation and Text Simplification.

- Seminars of the Department of Linguistics and Philology, Uppsala University, Sweden. Host: Joakim Nivre. October 2011. Topic: Enhancing and Applying Dependency Analysis in Different Topics.

- UCNLG+Eval - The 4th UCNLG Workshop: Language Generation and Evaluation at EMNLP 2011, Edinburgh, United Kingdom. Host: Anja Belz. July 2011.
- Talk Title: A Proposal for a Spanish Surface Realization Shared Task. (UCNLG+Eval - EMNLP 2011)

PRESS RELEASES

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