# Elena Álvarez Mellado

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#### Research interests

Computational Linguistics • Natural Language Processing • Corpus Linguistics

#### Education

2018-2020 Computational Linguistics MS, Brandeis University (GPA: 3.95/4.00)

MS Thesis: Lázaro: An Extractor of Anglicisms in Spanish Newswire. Advisor: Constantine Lignos. Coursework: Fundamentals of Computational Linguistics; Statistical Neural Approaches to NLP; NLP Systems: Named-Entity Recognition; NLP in Python; Information Extraction; Linguistic Annotation for Machine Learning; Data Structures Algorithms; Advanced Programming in Java.

2008-2010

06/2018

Linguistics BA, Universidad Complutense de Madrid (Grade: 7.59/10)

Erasmus scholarship at Université Paris Diderot (Paris 7) in 2009.

Final project: AZRAEL. A-Z Reconocedor Automático de Español. Advisor: Eduardo Basterrechea.

# Research & Professional Experience

06/2020 RESEARCH PROGRAMMER

Present Information Sciences Institute, University of Southern California (USC ISI) - MA, USA

Supervised by Liz Boschee

• Programmer at USC ISI Center for Vision, Image, Speech and Text Analytics (VISTA).

06/2019 RESEARCH DATA ANALYST

12/2019 McLean Hospital, Harvard Medical School – MA, USA

Supervised by Dr. Mei-Hua Hall, advised by prof. James Pustejovsky

Applied Machine Learning and NLP techniques to health records to predict readmission risk.

06/2017 Junior Researcher

Digital Humanities Lab, Universidad Nacional de Educación a Distancia (UNED) – Madrid, Spain Supervised by prof. Elena González-Blanco and prof. Salvador Ros

- Researcher in POSTDATA, ERC project on Poetry Standardization & Linked Open Data
- Developed annotation guidelines for Named Entity Recognition on medieval texts.

12/2014 LINGUISTIC DATA ANALYST

01/2016 Fundación del Español Urgente (Fundéu) – Madrid, Spain

• Conducted ARACNE, a Corpus Linguistics study on the evolution of the Spanish language on the media during the 20th century.

10/2010 ANALYTICAL LINGUIST

1/2016 *Molino de Ideas* – Madrid, Spain

• Developed, annotated and evaluated linguistic resources for Spanish language.

01/2010 Internship Student

o6/2010 Lingway-Eptica – Paris, France

· Annotated keywords for automatic CV matching.

06/2009 Internship Student

09/2009 Molino de Ideas - Madrid, Spain

• Provided morphological annotation of a database of Spanish conjugated verbs.

10/2008 RESEARCH ASSISTANT

03/2009 Department of Linguistics, Universidad Complutense de Madrid - Madrid, Spain

#### Skills

**Coding**: Python (spaCy, sklearn, PyTorch), Java. Also familiar with: Prolog, Haskell, MySQL. **Languages**: Spanish (native), English (fluent; CEFR: C2; TOEFL: 112; CPE: A), French (basic).

## **Publications**

CONFERENCE PAPERS

Elena Álvarez Mellado. Extracting English lexical borrowings from Spanish newswire. Society for Computation in Linguistics (SCiL 2021) (Forthcoming).

Elena Álvarez Mellado. Two models for Named Entity Recognition in Spanish. *Proceedings of the Iberian Languages Evaluation Forum (IberLEF 2020)*, colocated with SEPLN 2020. [pdf]

Elena Álvarez Mellado. A corpus of Spanish political speeches from 1937 to 2019. *Proceedings of The 12th Language Resources and Evaluation Conference (LREC)*. Marseille, France. ISBN: 979-10-95546-34-4. [pdf]

Elena Álvarez Mellado. An Annotated Corpus of Emerging Anglicisms in Spanish Newspaper Headlines. *Proceedings of the 4th Workshop on Computational Approaches to Code Switching*, colocated with LREC 2020. Marseille, France. ISBN: 979-10-95546-66-5. [pdf]

Elena Álvarez Mellado, Eben Holderness, Nicholas Miller, Fyonn Dhang, Philip Cawkwell, Kirsten Bolton, James Pustejovsky and Mei-Hua Hall. Assessing the Efficacy of Clinical Sentiment Analysis and Topic Extraction in Psychiatric Readmission Risk Prediction. *Proceedings of the 10th International Workshop on Health Text Mining and Information Analysis*, colocated with EMNLP 2019. Hong Kong, China. ISBN 978-1-950737-77-2. [pdf]

Elena Álvarez Mellado, Leticia Martín-Fuertes Moreno. Aracne: estudio de la variación lingüística en la prensa española entre 1914 y 2014. In III Congreso de la Sociedad Internacional de Humanidades Digitales Hispánicas. Málaga, Spain. ISBN: 978-84-697-5692-8. [pdf]

JOURNAL ARTICLES

2020

IN PRESS **Elena Álvarez Mellado**, M. Luisa Díez Platas, Pablo Ruiz Fabo, Helena Bermúdez, Salvador Ros Muñoz, Elena González-Blanco. TEI-friendly annotation scheme for medieval named entities. Currently under review for *Language Resources and Evaluation*. Springer. ISSN: 1574-0218. JCR Impact factor: 1.014

M. Luisa Díez Platas, Salvador Ros Muñoz, Elena González-Blanco, Pablo Ruiz Fabo, **Elena Álvarez Mellado**. Medieval Spanish (12th–15th centuries) Named Entity Recognition and attribute annotation system based on contextual information. *Journal of the Association for Information Science and Technology*. ISSN: 2330-1643. JCR Impact Factor: 2.41 [pdf]

Elena Álvarez Mellado and Leticia Martín-Fuertes Moreno. Aracne: estudio de la variación lingüística en la prensa española entre 1914 y 2014 (*Aracne: a study of the linguistic variation in the Spanish press between 1914 and 2014*). *Artnodes*, (22), Fundació per la Universitat Oberta de Catalunya. ISSN: 16955951. SJR: 0.125 [pdf]

Воокѕ

2016

Elena Álvarez Mellado, Anatomía de la Lengua, (The Anatomy of Language), Larousse-Vox, ISBN 978-84-9974-216-8

# Scholarships & Awards

2020	Outstanding Corpus Thesis Award (Institute for Corpus Research, Incheon National University).
2020	Karen Spärck Jones Award for Outstanding Achievement in NLP (Brandeis University).
2017	Premio Nacional de Periodismo Miguel Delibes (Asociación de Prensa de Valladolid).
2017	LaCaixa Foundation scholarship to pursue studies in the US (Fundación LaCaixa).
2009	First award at the Arquímedes Contest for Young Researchers (Ministry of Science, Spain).
2005	Excellence scholarship (Madrid Regional Government).

## Selected Talks & Seminars

Nov 2020	Lingüística computacional en español, Universität Zürich.
Jun 2018	Nacimiento, vida y muerte de una metáfora, Natural Language Processing & IR Group, UNED.
Jun 2018	Aplicaciones del PLN para en humanidades, Digital Humanities Summer School, UNED.
Mar 2018	Radiografía lingüística de la prensa, Jornadas de Estudios de Lingüística, Universidad de Alicante.
Mar 2017	La lematización de textos, Seminario Filologías Digitales Hoy, Universidad de Extremadura.
Nov 2016	Lingu ¿qué? Compu ¿cómo?, Universidad de Alicante.
Jul 2015	Curso de expresiones regulares para profesionales de humanidades, coLenguando, Madrid.
Mar 2015	Vivir (de) la lengua, Universitat Rovira i Virgili.
Mar 2014	Cacharreando con la lengua. Recursos informáticos para filología, Universidad de Zaragoza.
Jun 2014	From 1856 to 2014: resurrecting the dictionary, APIdays Mediterranea, Barcelona.
Dec 2013	Todo lo que un filólogo no sabe que sabe hacer, grupo Psylex, Universidad de Zaragoza.
Dec 2012	Nuevas tecnologías aplicadas a la enseñanza de español, Universidad de Alcalá de Henares.
Nov 2011	Lenguas y Tecnología, XI Semana de la Ciencia de la Comunidad de Madrid.

# **Personal Projects**

2020- Observatorio Lázaro

• An observatory of anglicism usage in the Spanish press.

2018-2019 Corpus of political speeches from 1937 to 2019

Analysis, visualizations and Python interface of a corpus of Spanish political speeches.

2009-2016 Azrael: A-Z Reconocedor Automatico de Espanol

- An automatic language detector in Prolog based in the syllable structure.
- · Current supported languages: Spanish, French, Italian, Portuguese, Catalan, Latin and Basque.

## Dissemination & Outreach

Editorial board member and columnist at *Archiletras*, magazine about language and Linguistics.

Scientific committee member for *MariCorners* conference on LGBT language and communication.

Columnist for Spanish national newspaper *elDiario.es* with a monthly column about Linguistics.

Radio contributor at RNE (Spanish National Radio) on a weekly section about Linguistics.

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