# Danae Sánchez Villegas

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## **EDUCATION**

The University of Sheffield

Sheffield, UK

Ph.D. in Computer Science. Supervisor: Professor Nikolaos Aletras

2019-Present

- Natural Language Processing Group (SheffieldNLP)
- Focus: multimodal social media analysis, data collection, language modelling
- Expected Graduation: September 2023

The University of Sheffield

Sheffield, UK

M.Sc. in Computer Science, (Distinction). Supervisor: Professor Rob Gaizauskas

2018-2019

- Dissertation: Machine Comprehension Using Commonsense Knowledge

Instituto Tecnológico Autónomo de México

Mexico City, MEX

B.Sc. in Computer Engineering, GPA. 8.91/10. Supervisor: Dr. Fernando Esponda

2012-2016

- Dissertation: Time Series Modeling for Stock Market Prediction Using Machine Learning

## Professional Experience

University of Sheffield – Department of Computer Science

Sheffield, UK

London, UK

Research Associate at the Natural Language Processing Group

Aug 2023 – Now

Amazon Applied Scientist Intern at Alexa Shopping Science UK

Jun 2022 – Dec 2022

University of Sheffield – Department of Computer Science

Sheffield, UK

Teaching Assistant

Sep 2020 – Jun 2023

- Text Processing COM 3110/4115 (Autumn 2020, 2021).
- Natural Language Processing COM6513 (Spring 2020, 2021, 2022, 2023).

Deep Dive Data Science

Mexico City, MEX

Data Scientist

Mar 2017 - Sep 2018

- Developed data science solutions for financial, insurance and real estate companies using natural language processing, social media analysis and geospatial analysis.

Resuelve

Mexico City, MEX

Digital Marketing Trainee

Nov 2016 - Feb 2017

- Developed a system to help analysts create reports that support their decision-making.

#### Nanyang Technological University

Singapore, SGP

Research Intern with the SenticNet Team

Summer 2016

- Explored sentiment analysis models using data in English and Spanish.

SKILLS LANGUAGES

• NLP/ML Software: PyTorch, Tensorflow, HuggingFace Transformers, NLTK, Keras

• Programming: Python, Bash, Java, SQL

 $\bullet$  English Fluent

• Spanish Native

# TEACHING & ACADEMIC ACTIVITIES

•	Reviewer ACL, NACL, EACL, ARR, NLLP Workshop, W-NUT Workshop	2020-Now
•	<b>Teaching Assistant</b> Assist students during practical sessions and grade assessments following a marking criteria set by the Course Leader.	2020-2023
•	<b>LxMLS Monitor</b> Tutor students during the lab sessions of the Lisbon Machine Learning School.	2023
•	MSc. Dissertation Co-Supervisor. Co-supervised Xiao Ao (with Daniel Preoţiuc-Pietro and Nikolaos Aletras), a MSc. student from Sheffield University with the project: Combining Humor and Sarcasm for Improving Political Parody Detection	2022
•	<b>Equality, Diversity, and Inclusion Analysis</b> Data analysis on the gender pay gap and awarding gap in the Computer Science Department of Sheffield University.	2021
•	OxML 2021. Attended the Oxford Machine Learning Summer School	2021
•	LxMLS 2020 Attended the Lisbon Machine Learning Summer School	2020
•	<b>Code First Girls Instructor</b> Delivered an introduction to Python programming course (remote) for students who identify as a woman or non-binary and are complete beginners in programming.	2020

# INVITED TALKS

•	IDS Research Talk, Maastricht University. NLP for Computational Social Science	$\mathrm{Apr}\ 2022$
•	Annotation hackathon, Utrecht University Introduction to machine learning and annotations	Apr 2022
•	${f VVA}$ Multidisciplinary discussion on the impact of influencers on advertising and consumer protection	Nov 2021
•	AI4Dignity Counterathon 2021, LMU Multidisciplinary discussion on datasets and NLP models for extreme speech detection	Jul 2021
•	ITAM Research Seminar Machine Learning Models for Analyzing Social Media Text	Mar 2021
•	Sheffield NLP Seminar NLP for Computational Social Science	Dec 2020

# SCHOLARSHIPS AND AWARDS

•	Scholarship, UKRI Centre for Doctoral Training in Speech and Language Technologies  Tuition fees and stipend for living expenses during Ph.D. studies at the University of Sheffield.	2019–2023
•	Scholarship, Consejo Nacional de Ciencia y Tecnología (Conacyt) Stipend for living expenses during my M.Sc. at the University of Sheffield.	2018-2019
•	Honorable Mention, Ex ITAM Research Award Research award for my BSc. dissertation.	2018

# **PUBLICATIONS**

[1] E. Gow-Smith and **Sánchez Villegas, Danae**, "Sheffield's Submission to the AmericasNLP Shared Task on Machine Translation into Indigenous Languages", in *Proceedings of the Workshop on Natural Language Processing for Indigenous Languages of the Americas*, Toronto, Canada: Association for Computational Linguistics, Jul. 2023.

- [2] X. Ao, Sanchez Villegas, Danae, D. Preotiuc-Pietro, and N. Aletras, "Combining humor and sarcasm for improving political parody detection", in *Proceedings of the 2022 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies*, Seattle, United States: Association for Computational Linguistics, Jul. 2022, pp. 1800–1807.
- [3] Sánchez Villegas, Danae and N. Aletras, "Point-of-Interest Type Prediction using Text and Images", in *Proceedings of the 2021 Conference on Empirical Methods in Natural Language Processing*, Online and Punta Cana, Dominican Republic: Association for Computational Linguistics, Nov. 2021, pp. 7785–7797.
- [4] Sánchez Villegas, Danae, S. Mokaram, and N. Aletras, "Analyzing Online Political Advertisements", in *Findings of the Association for Computational Linguistics: ACL-IJCNLP 2021*, Online: Association for Computational Linguistics, Aug. 2021, pp. 3669–3680.
- [5] A. Maronikolakis, **Sánchez Villegas, Danae**, D. Preotiuc-Pietro, and N. Aletras, "Analyzing Political Parody in Social Media", in *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics*, Online: Association for Computational Linguistics, Jul. 2020, pp. 4373–4384.
- [6] Sánchez Villegas, Danae, D. Preotiuc-Pietro, and N. Aletras, "Point-of-Interest Type Inference from Social Media Text", in *Proceedings of the 1st Conference of the Asia-Pacific Chapter of the Association for Computational Linguistics*, Online: Association for Computational Linguistics, Dec. 2020, pp. 804–810.