

Seminario DaSCI PLN

Miércoles 8 de Enero

Lugar/Place: Sala de reuniones de DECSAI

Hora	Título/Title	Asistentes/ Attendants	Ponente/Lecturer
11.30	“Word, Sense and Contextualized Embeddings: Vector Representations of Meaning in Natural Language Processing”	12	José Camacho Collados (Lecturer at Cardiff University)
12.30	Deep Learning para Clasificar la Opinión sobre una Entidad y sus Aspectos	12	Nuria Rodríguez Barroso (DaSCI Student)
12.45	Generación automática de síntesis de opiniones	12	Miguel López Campos (DaSCI Student)
13.00	Análisis de Opiniones para la Toma de Decisiones	12	Cristina Zuheros (DaSCI Student)

Title: “Word, Sense and Contextualized Embeddings: Vector Representations of Meaning in Natural Language Processing”

Abstract: Over the past years, word embeddings have proved to be effective and flexible keepers of prior knowledge to be integrated into downstream Natural Language Processing (NLP) applications. In this talk I will start by briefly presenting word vector space models in general, and then highlighting one of their major limitations: the meaning conflation deficiency, which arises from representing a word with all its possible meanings as a single vector (e.g. mouse can be an animal or a computer device). This deficiency can be addressed through a transition from the word level to the more fine-grained level of word senses. I will provide an overview of the wide range of techniques in the two main branches of sense representation, i.e., unsupervised and knowledge-based. Finally, I will also present some of the latest developments in this area, namely contextualized embeddings. This branch has been quickly popularized by methods like ELMo and BERT, leading to substantial improvements in NLP tasks thanks to a more dynamic modelling of meaning.

Short-Bio: Jose Camacho Collados (camachocolladosj@cardiff.ac.uk; <http://www.josecamachocollados.com>) is a Lecturer at Cardiff University. Previously he was a Google Doctoral Fellow in the area of Natural Language Processing (NLP) and completed his PhD at Sapienza University of Rome in 2018. Jose has experience in the field of meaning representation, contributing with several works published in top NLP and AI venues (ACL, EMNLP, IJCAI, AAAI, AIJ, etc.) and a recent survey in the Journal of Artificial Intelligence Research. In this area, he has co-organized three SemEval shared tasks, two workshops on Sense, Concept and Entity Representations and their Applications at EACL 2017 and Semantic Deep Learning at IJCAI 2019, and co-instructed the most-attended afternoon tutorial at ACL 2016. Outside of this area, Jose is also interested in multilinguality and on how to integrate background knowledge into downstream NLP applications.