

Daniel Loureiro

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Work Experience

- 2023 – 2023 **MarketFit.ai**, *Founder*, Portugal.
Developing Simulated Buyer Personas for Audience Discovery and Social Ad Generation.
- 2022 – 2023 **Cardiff University**, *Postdoctoral Research Associate*, Cardiff, UK.
Diachronic Modeling and Evaluation, Social Media, within the Cardiff NLP Group.
- 2016 – 2017 **Followprice**, *Head of Data Science*, Braga/Lisbon, Portugal.
Semantic Search, Product Recommendation.
- 2014 – 2016 **PepFeed**, *CEO and Founder*, Braga, Portugal.
Responsible for Raising Capital, Hiring and Product Development.

Education

- 2017 – 2022 **University of Porto, FCUP**, Porto, Portugal
Ph.D., FCT Scholarship, Advisor: Prof. Alípio Jorge
Thesis: "Learning Word Sense Representations from Neural Language Models".
- 2008 – 2013 **University of Porto, FCUP**, Porto, Portugal
BSc, Computer Science with Minor in Biology.

Selected Publications

- ACL 2022 **Daniel Loureiro***, Francesco Barbieri*, Leonardo Neves, Luis Espinosa Anke, José Camacho-Collados. TimeLMs: Diachronic Language Models from Twitter. In Proceedings of the 60th Annual Meeting of the Association for Computational Linguistics: System Demonstrations (May 2022). Dublin, Ireland.
- AIJ 2022 **Daniel Loureiro**, Alípio Jorge, José Camacho-Collados. LMMS Reloaded: Transformer-based Sense Embeddings for Disambiguation and Beyond. In Artificial Intelligence Journal Volume 305 (April 2022).
- CL 2021 **Daniel Loureiro***, Kiamehr Rezaee*, Mohammad Taher Pilehvar, José Camacho-Collados. Analysis and Evaluation of Language Models for Word Sense Disambiguation. In Computational Linguistics (June 2021).

ACL 2019 **Daniel Loureiro** and Alípio Jorge. Language Modelling Makes Sense: Propagating Representations through WordNet for Full-Coverage Word Sense Disambiguation. In Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics (July 2019). Florence, Italy.

Other Publications

Preprint **Daniel Loureiro**, Kiamehr Rezaee, Talayeh Riahi, Francesco Barbieri, Leonardo Neves, Luis Espinosa Anke, Jose Camacho-Collados. Tweet Insights: A Visualization Platform to Extract Temporal Insights from Twitter. August 2023. arXiv:2308.02142.

COLING 2022 **Daniel Loureiro**, Aminette D'Souza, Areej Nasser Muhajab, Isabella A. White, Gabriel Wong, Luis Espinosa-Anke, Leonardo Neves, Francesco Barbieri, Jose Camacho-Collados. TempoWiC: An Evaluation Benchmark for Detecting Meaning Shift in Social Media. In Proceedings of the 29th International Conference on Computational Linguistics (2022). Gyeongju, Republic of Korea.

EMNLP 2022 Jose Camacho-Collados, Kiamehr Rezaee, Talayeh Riahi, Asahi Ushio, **Daniel Loureiro**, Dimosthenis Antypas, Joanne Boisson, Luis Espinosa-Anke, Fangyu Liu, Eugenio Martínez-Cámara, Gonzalo Medina, Thomas Buhmann, Leonardo Neves, Francesco Barbieri. TweetNLP: Cutting-Edge Natural Language Processing for Social Media. In Proceedings of the 29th International Conference on Computational Linguistics (2022). Gyeongju, Republic of Korea.

Preprint **Daniel Loureiro**, Alípio Jorge. Probing Commonsense Knowledge in Pre-trained Language Models with Sense-level Precision and Expanded Vocabulary. October 2022. arXiv:2210.06376.

MRL 2021 Kiamehr Rezaee*, **Daniel Loureiro***, Mohammad Taher Pilehvar, José Camacho-Collados. On the Cross-lingual Transferability of Contextualized Sense Embeddings. In Proceedings of the 1st Workshop on Multilingual Representation Learning (2021). Punta Cana, Dominican Republic.

DSAA 2021 Sofia Oliveira, **Daniel Loureiro**, Alípio Jorge. Improving Portuguese Semantic Role Labeling with Transformers and Transfer Learning. In IEEE 8th International Conference on Data Science and Advanced Analytics (2021). Porto, Portugal.

EMNLP 2020 **Daniel Loureiro**, José Camacho-Collados. Don't Neglect the Obvious: On the Role of Unambiguous Words in Word Sense Disambiguation. In Proceedings of the 2020 Conference on Empirical Methods in Natural Language Processing. Online.

ECIR 2020 **Daniel Loureiro**, Alípio Jorge. MedLinker: Medical Entity Linking with Neural Representations and Dictionary Matching. In Proceedings of Advances in Information Retrieval: 42nd European Conference on IR Research (2020). Lisbon, Portugal.

SemDeep-5 2019 **Daniel Loureiro**, Alípio Jorge. LIAAD at SemDeep-5 Challenge: Word-in-Context (WiC). In Proceedings of the 5th Workshop on Semantic Deep Learning (SemDeep-5, 2019). Macau, China.

FEVER 2018 **Daniel Loureiro**, Alípio Jorge. Affordance Extraction and Inference based on Semantic Role Labeling. In Proceedings of the First Workshop on Fact Extraction and VERification (FEVER, 2018). Brussels, Belgium.

Skills

Programming Python, Transformers, Diffusers, Local LLMs (LLaMa), Cloud LLMs (OpenAI), Stable Diffusion, Numpy, Scikit, spaCy, PyTorch, Cloud Services (GCP)

Languages English (fluent), Portuguese (native)

Certificates CPE - Cambridge Certificate of Proficiency in English (2007)

Communication Skills

Academic Oral Presentations at ACL, EMNLP and IJCAI.

Business Winner of several startup Pitch Competitions: Startup Pirates (2012), Silicon Valley Comes to Lisbon (2013), Startup Braga Demo Day (2015).

Services

Program 2023: EACL, EMNLP

Committee 2022: IJCAI-ECAI, COLING, LREC
2021: ACL-IJCNLP, IJCAI, Text2Story
2020: ACL, EMNLP, AACL-IJCNLP, COLING, AI4Narratives, Text2Story
2019: NAACL-HLT*, EMNLP-IJCNLP*, Text2Story
* Nominated Outstanding Reviewer

Organization 2022: Shared Task (Codalab) for the EvoNLP Workshop at EMNLP 2022, 1st Edition of the Cardiff NLP Summer School.
2020: Review Support Chair at AI4Narratives Workshop at IJCAI 2020.