Diego Marcheggiani

Curriculum Vitae

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Experience

- Apr 2022 Sr. Applied Scientist, Amazon, Barcelona, ES.
 - Now Working on review summarization approaches using LLMs
- March 2019 **Applied Scientist**, *Amazon*, Barcelona, ES.
 - Apr 2022 Working on models to extract and aggreagates opinions from product reviews at scale.
 - Jul 2017 Visiting Post-doc Researcher, University of Edinburgh School of Informatics Institute for
 - Feb 2019 Language, Cognition and Computation (ILCC), Edinburgh, UK.
 - Exploiting and inducing linguistic structures with neural networks.
 - Sep 2015 **Post-doc Researcher**, *University of Amsterdam*, Institute for Logic, Language, and Computation
 - Feb 2019 (ILLC), Amsterdam, NL.
 - Deep learning methods for semantic role labeling.
 - Sep 2014 Visiting Researcher, University of Amsterdam, Institute for Logic, Language, and Computation
 - Nov 2014 (ILLC), Amsterdam, NL.
 - Unsupervised relation extraction with variational discrete autoencoders.
 - Oct 2012 Visiting Researcher, Université Pierre et Marie Curie, Laboratoire d'informatique de Paris 6,
 - Dec 2012 Paris, FR.
 - Active learning with partially labeled sequences.
 - Apr 2011 Visiting Researcher, Swedish Institute of Computer Science (SICS), Stockholm, SE.
 - Multi-label conditional random fields for opinion mining.
 - Sep 2009 Research Fellow, ISTI-CNR, Networked Multimedia Information Systems Laboratory, Human
 - Jul 2015 Language Technologies group, Pisa, IT.
 - Machine learning for sequence labeling.

Education

- 2010–2014 PhD in Computer Science, Università Ca Foscari di Venezia, Venice, IT.
 - Thesis title: "Beyond Linear-chain: a Journey through Conditional Random Fields for Information Extraction
 - from Text."
 - Supervisors: Fabrizio Sebastiani, Andrea Esuli.
- 2006–2009 M.Sc. in Computer Science, Università di Pisa, Pisa, IT.
 - Thesis title: "Active Learning for Information Extraction"
 - Supervisors: Fabrizio Sebastiani, Andrea Esuli.
- 2002–2006 B.Sc. in Computer Science, Università degli Studi di Perugia, Perugia, IT.

Service

Tutorial

EMNLP 2017 Tutorial on Neural Methods for Semantic Role Labeling.

Program Committee

ACL, NAACL, EACL, EMNLP, COLING, ICLR, NIPS, ICML, WWW, IJCAI.

Teaching

- 2017 **Guest Lecturer**, *University of Amsterdam*, Unsupervised Language Learning. Recurrent Neural Networks and Encoder-Decoder Models.
- 2016 **Guest Lecturer**, *University of Amsterdam*, Unsupervised Language Learning.

 Recurrent Neural Networks and Encoder-Decoder Models, Memory Networks and Neural Turing Machines.

Publications

Seraphina Goldfarb-Tarrant, Adam Lopez, Roi Blanco, and Diego Marcheggiani. Bias beyond English: Counterfactual tests for bias in sentiment analysis in four languages. In *Findings of the Association for Computational Linguistics: ACL 2023*, pages 4458–4468, 2023.

Diego Marcheggiani and Ivan Titov. Graph convolutions over constituent trees for syntax-aware semantic role labeling. In *Proceedings of the 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, pages 3915–3928, 2020.

Marco Del Tredici, Diego Marcheggiani, Sabine Schulte im Walde, and Raquel Fernández. You shall know a user by the company it keeps: Dynamic representations for social media users in NLP. In *Proceedings of the 2019 Conference on Empirical Methods in Natural Language Processing and the 9th International Joint Conference on Natural Language Processing (EMNLP-IJCNLP)*, pages 4701–4711, 2019.

Stefanos Angelidis, Lea Frermann, Diego Marcheggiani, Roi Blanco, and Lluís Màrquez. Book QA: Stories of challenges and opportunities. In *Proceedings of the 2nd Workshop on Machine Reading for Question Answering*, pages 78–85, 2019.

Diego Marcheggiani and Laura Perez-Beltrachini. Deep graph convolutional encoders for structured data to text generation. In *Proceedings of the 11th International Conference on Natural Language Generation (INLG)*, pages 1–9, 2018.

Diego Marcheggiani, Jasmijn Bastings, and Ivan Titov. Exploiting semantics in neural machine translation with graph convolutional networks. In *Proceedings of the the 16th Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL-HLT)*, pages 486–492, 2018.

Diego Marcheggiani and Fabrizio Sebastiani. On the effects of low-quality training data on information extraction from clinical reports. *ACM Journal of Data and Information Quality*, 9(1):1:1–1:25, 2017.

Jasmijn Bastings, Ivan Titov, Wilker Aziz, Diego Marcheggiani, and Khalil Simaan. Graph convolutional encoders for syntax-aware neural machine translation. In *Proceedings of the 2017 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, pages 1947–1957, 2017.

Diego Marcheggiani and Ivan Titov. Encoding sentences with graph convolutional networks for semantic role labeling. In *Proceedings of the 2017 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, pages 1507–1516, 2017.

Diego Marcheggiani, Anton Frolov, and Ivan Titov. A simple and accurate syntax-agnostic neural model for dependency-based semantic role labeling. In *Proceedings of the 21st Conference on Computational Natural Language Learning (CoNLL)*, pages 411–420, 2017.

Diego Marcheggiani, Ehsan Khoddam, and Ivan Titov. Unsupervised induction of shallow semantic representations with feature-rich models. In *Book of Abstracts of the 9th International Conference on Construction Grammar (ICCG)*, 2016.

Diego Marcheggiani and Ivan Titov. Discrete-state variational autoencoders for joint discovery and factorization of relations. *Transactions of the ACL (TACL)*, 4:231–244, 2016.

Diego Marcheggiani and Ivan Titov. Autoencoding for joint relation factorization and discovery from text. In *Proceedings of the 4th International Conference on Learning Representations - Workshop track (ICLR)*, 2016.

Salud M. Jiménez Zafra, Giacomo Berardi, Andrea Esuli, Diego Marcheggiani, Maria Teresa Martín-Valdivia, and Alejandro Moreo Fernández. A multi-lingual annotated dataset for aspect-oriented opinion mining. In *Proceedings of the 2015 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, pages 2533–2538, 2015.

Giacomo Berardi, Andrea Esuli, and Diego Marcheggiani. Word embeddings go to Italy: A comparison of models and training datasets. In *Proceedings of the 6th Italian Information Retrieval Workshop (IIR)*, 2015.

Giacomo Berardi, Diego Ceccarelli, Andrea Esuli, and Diego Marcheggiani. On the impact of entity linking in microblog real-time filtering. In *Proceedings of the 30th Annual ACM Symposium on Applied Computing (SAC)*, pages 1066–1071, 2015.

Diego Marcheggiani, Oscar Täckström, Andrea Esuli, and Fabrizio Sebastiani. Hierarchical multilabel conditional random fields for aspect-oriented opinion mining. In *Advances in Information Retrieval - 36th European Conference on IR Research (ECIR). Proceedings*, pages 273–285, 2014.

Diego Marcheggiani and Thierry Artières. An experimental comparison of active learning strategies for partially labeled sequences. In *Proceedings of the 2014 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, pages 898–906, 2014.

Andrea Esuli, Diego Marcheggiani, and Fabrizio Sebastiani. An enhanced crfs-based system for information extraction from radiology reports. *Journal of Biomedical Informatics*, 46(3):425–435, 2013.

Giacomo Berardi, Andrea Esuli, and Diego Marcheggiani. Isti@trec microblog track 2012: Real-time filtering through supervised learning. In *Proceedings of The Twenty-First Text REtrieval Conference (TREC)*, 2012.

Giacomo Berardi, Andrea Esuli, Sergiu Gordea, Diego Marcheggiani, and Fabrizio Sebastiani. Metadata enrichment services for the europeana digital library. In *Proceedings of the Second International Conference on Theory and Practice of Digital Libraries (TPDL)*, pages 508–511, 2012.

Giacomo Berardi, Andrea Esuli, Diego Marcheggiani, and Fabrizio Sebastiani. Isti@trec microblog track 2011 exploring the use of hashtag segmentation and text quality ranking. In *Proceedings of The Twentieth Text REtrieval Conference (TREC)*, 2011.

Andrea Esuli, Diego Marcheggiani, and Fabrizio Sebastiani. Isti@semeval-2 task 8 boosting-based multiway relation classification. In *Proceedings of the 5th International Workshop on Semantic Evaluation (SemEval@ACL)*, pages 218–221, 2010.

Andrea Esuli, Diego Marcheggiani, and Fabrizio Sebastiani. Sentence-based active learning strategies for information extraction. In *Proceedings of the First Italian Information Retrieval Workshop (IIR)*, pages 41–45, 2010.