

Ana Marasović, Curriculum Vitae, May 2021

Allen Institute for Artificial Intelligence (AI2)
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RESEARCH INTERESTS

Natural Language Processing, Explainable AI, Multimodality

EDUCATION AND HONORS

- | | |
|---|-------------|
| Ph.D. in Computational Linguistics, Heidelberg University | 2015 – 2019 |
| <i>Thesis:</i> “Deep Learning With Sentiment Inference For Discourse-Oriented Opinion Analysis” | |
| <i>Advisor:</i> Anette Frank | |
| <i>Honors:</i> Magna cum laude | |
| M.Sc. in Applied Mathematics, University of Zagreb | 2013 – 2015 |
| <i>Thesis:</i> “Latentna Semantička Analiza, Varijante i Primjene” | |
| <i>Advisor:</i> Saša Singer | |
| <i>Honors:</i> Summa cum laude | |
| B.Sc. in Mathematics, University of Zagreb | 2010 – 2013 |

PROFESSIONAL EXPERIENCE

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| Postdoctoral Research, University of Washington | January 2020 – present |
| Paul G. Allen School of Computer Science & Engineering | |
| <i>Host:</i> Noah A. Smith | |
| Postdoctoral Research, Allen Institute for Artificial Intelligence | March 2019 – present |
| <i>Mentors:</i> Noah A. Smith, Yejin Choi | |
| Research Intern, Amazon Berlin | Summer 2017 |
| <i>Topic:</i> Neural sentiment domain adaption with multiple source domains | |
| Research Intern, Poslovna Inteligencija | Summer 2014 |
| <i>Topic:</i> Churn prediction in telecom using social network analysis | |

INVITED TALKS

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| Explaining with Natural Language | November 2020 |
| Rising Stars Workshop, UC Berkeley | |
| Methods for Analyzing (Current) NLP Models | March 2020 |
| University of Washington, Guest Lecture in CSE 517 | |
| Reflecting on Interpretability Desiderata with Visual Commonsense Reasoning | November 2019 |
| University of Washington, Department of Linguistics | |
| Teaching Machines Language Understanding | April 2019 |
| Allen School Women’s Research Day, University of Washington | |
| Resolving Abstract Anaphors in Discourse: Uphill Battles with Neural Ranking Models and Automatic Data Extraction | |
| Allen Institute for AI | October 2018 |
| NAACL Workshop on Computational Models of Reference, Anaphora, and Coreference | June 2018 |
| Potsdam University, Applied Computational Linguistics | June 2018 |
| Bochum University, Sprachwissenschaftliches Institut | May 2018 |

SERVICE

Workshop Organizer

SustainNLP: Workshop on Simple and Efficient Natural Language Processing @ EMNLP 2021
AIPHES Scientific Workshop 2017

Monograph Reviewer

Synthesis Lectures in Human Language Technologies: *Explainable Natural Language Processing* 2021

Journal Reviewer

Transactions of ACL 2017 (secondary reviewer)

Conference Reviewer

EMNLP 2018, 2019 (**outstanding reviewer**), 2020 (**outstanding reviewer**), 2021
ACL 2017 (secondary reviewer), 2019, 2020, 2021
EACL 2021
ICML 2020
AAAI 2020

Workshop Reviewer

Representation Learning for NLP (Repl4NLP) @ ACL 2018, ACL 2019
Deep Learning Approaches for Low-Resource Natural Language Processing (DeepLo) @ EMNLP 2019
Learning from Limited Labeled Data (LLD) Workshop @ ICLR 2019
Evaluation and Comparison of NLP Systems (EvalNLP) @ EMNLP 2020
Insights from Negative Results in NLP @ EMNLP 2020
Computational Approaches to Discourse (CODI) @ EMNLP 2020
Domain Adaptation for NLP (Adapt-NLP) @ EACL 2021

Community Service

Host of the NLP Highlights Podcast in 2021
AI2 Diversity, Equity and Inclusion Committee 2020, 2021
Panelist at SoCal ML & NLP Symposium 2021
Reader of 2020 PhD applications at the University of Washington
Moderator of a meetup on “Whether to do a PhD; and how to apply for and choose a PhD program” @ EMNLP 2020
Moderator of a meetup on “Interpretability and Analysis of Models for NLP” at EMNLP 2020
Moderator of a roundtable on “Natural Language Generation” at WiNLP @ ACL 2020
Mentor at WiNLP @ ACL 2020
Panelist at undergraduate panel session @ ACL 2020
“Big sibling” at EMNLP 2019, NAACL 2019

MENTORING

AI2 Predoctoral Researchers

Alexis Ross (co-mentor: Matthew E. Peters) July 2020 – present

AI2 Interns

Alexander M. Hoyle (co-mentor: Noah A. Smith) June 2020 – November 2020
Sarah Wiegrefe (**AI2 Intern of the Year**; co-mentor: Noah A. Smith) May 2020 – October 2020
Zhanming Allan Jie (co-mentor: Pradeep Dasigi) June 2019 – August 2019

UW Undergraduate Students

Kaiser Sun (UW CSE BS/MS student; co-mentor: Noah A. Smith) March 2020 – present
Millicent Li (UW CSE BS student; co-mentor: Noah A. Smith) March 2020 – present

PUBLICATIONS

ArXiv Preprints

Jesse Dodge, Maarten Sap, **Ana Marasović**, William Agnew, Gabriel Ilharco, Dirk Groeneveld, and Matt Gardner. *Documenting the English Colossal Clean Crawled Corpus*

Sarah Wiegrefe and **Ana Marasović** (equal contributions). *Teach Me to Explain: A Review of Datasets for Explainable NLP*

Sarah Wiegrefe, **Ana Marasović**, and Noah A. Smith. *Measuring Association Between Labels and Free-Text Rationales*

Peer-Reviewed Publications

Kaiser Sun and **Ana Marasović**. *Effective Attention Sheds Light On Interpretability*. Findings of ACL 2021.

Alexis Ross, **Ana Marasović**, and Matthew E. Peters. *Explaining NLP Models via Minimal Contrastive Editing (MiCE)*. Findings of ACL 2021.

Alexander M. Hoyle, **Ana Marasović**, and Noah A. Smith. *Promoting Graph Awareness in Linearized Graph-to-Text Generation*. Findings of ACL 2021.

Alon Jacovi, **Ana Marasović**, Tim Miller, and Yoav Godlberg. *Formalizing Trust in Artificial Intelligence: Prerequisites, Causes and Goals of Human Trust in AI*. ACM FAccT 2021.

Ana Marasović, Chandra Bhagavatula, Jae sung Park, Ronan Le Bras, Noah A. Smith, and Yejin Choi. *Natural Language Rationales with Full-Stack Visual Reasoning: From Pixels to Semantic Frames to Commonsense Graphs*. Findings of EMNLP 2020.

Qiang Ning, Hao Wu, Pradeep Dasigi, Dheeru Dua, Matt Gardner, Robert L. Logan IV, **Ana Marasović**, and Zhen Nie. *Easy, Reproducible and Quality-Controlled Data Collection with CROWDAQ*. EMNLP Demo 2020.

Suchin Gururangan, **Ana Marasović**, Swabha Swayamdipta, Kyle Lo, Iz Beltagy, Doug Downey, and Noah A. Smith. *Don't Stop Pretraining: Adapt Language Models to Domains and Tasks*. ACL 2020. **(Received an Honorable Mention for Best Paper)**

Pradeep Dasigi, Nelson F. Liu, **Ana Marasović**, Noah A. Smith, and Matt Gardner. *Quoref: A Reading Comprehension Dataset with Questions Requiring Coreferential Reasoning*. EMNLP 2019.

Ana Marasović and Anette Frank. *SRL4ORL: Improving Opinion Role Labeling Using Multi-Task Learning with Semantic Role Labeling*. NAACL 2018.

Markus Zopf, Teresa Botschen, Tobias Falke, Benjamin Heinzerling, **Ana Marasović**, Todor Mihaylov, S. Avinesh P.V., Eneldo Loza Mencía, J. Fürnkranz, and A. Frank. *What's Important in a Text? An Extensive Evaluation of Linguistic Annotations for Summarization*. SNAMS 2018.

Ana Marasović, Leo Born, Juri Opitz, and Anette Frank. *A Mention-Ranking Model for Abstract Anaphora Resolution*. EMNLP 2017.

Ana Marasović, Mengfei Zhou, Alexis Palmer, and Anette Frank. *Modal Sense Classification At Large: Paraphrase-Driven Sense Projection, Semantically Enriched Classification Models and Cross-Genre Evaluations*. Linguistic Issues in Language Technology (LiLT) – Modality: Logic, Semantics, Annotation, and Machine Learning 14 (3). 2016.

Ana Marasović and Anette Frank. *Multilingual Modal Sense Classification using a Convolutional Neural Network*. Workshop on Representation Learning for NLP (Repl4NLP) 2016.

Blog Posts

Ana Marasović. *NLP's Generalization Problem, and How Researchers Are Tackling It*. The Gradient 2018.

Ana Marasović. *BERT-base Transformer Forward Pass*. Available at <https://www.anamarasovic.com/bert-forward/>.

TECHNICAL SKILLS

- Preferred programming language: Python
- Preferred deep learning frameworks: AllenNLP, PyTorch, Transformers library

OPEN-SOURCE SOFTWARE AND DATASETS

- Natural Language Rationales with Full-Stack Visual Reasoning: From Pixels to Semantic Frames to Commonsense Graphs
<https://github.com/allenai/visual-reasoning-rationalization>
- Don't Stop Pretraining: Adapt Language Models to Domains and Tasks
Contributor
<https://github.com/allenai/dont-stop-pretraining>
- Quoref Dataset
Contributor
<https://allenai.org/data/quoref>
- SRL4ORL: Improving Opinion Role Labeling Using Multi-Task Learning With Semantic Role Labeling
<https://github.com/amarasovic/naacl-mpqa-srl4orl>
- A Mention-Ranking Model for Abstract Anaphora Resolution
<https://github.com/amarasovic/neural-abstract-anaphora>
<https://github.com/amarasovic/abstract-anaphora-data>
- Multilingual Modal Sense Classification using a Convolutional Neural Network
<https://github.com/amarasovic/modal-sense-classification>
Dataset: <http://projects.cl.uni-heidelberg.de/modals/>
- Matplotlib Examples for Visualizing Paper Results
<https://github.com/amarasovic/matplotlib4papers>

PARTICIPATION IN SUMMER SCHOOLS

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| • Deep Learning Summer School (DLSS), Montreal, Canada | 2017 |
| • Reinforcement Learning Summer School (RLSS), Montreal, Canada | 2017 |
| • Machine Learning Summer School (MLSS), Cadiz, Spain | 2016 |
| • Summer School on Integrating Vision & Language (iV&L): Deep Learning, Malta | 2016 |