

# Ana Marasović, Curriculum Vitae, February 2021

Allen Institute for Artificial Intelligence (AI2)  
University of Washington  
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## RESEARCH INTERESTS

Natural Language Processing, Explainable AI, Multimodality

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## EDUCATION AND HONORS

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|---|-------------|
| <b>Ph.D. in Computational Linguistics, Heidelberg University</b>                                | 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  |             |
| <b>M.Sc. in Applied Mathematics, University of Zagreb</b>                                       | 2013 – 2015 |
| <i>Thesis:</i> “Latentna Semantička Analiza, Varijante i Primjene”                              |             |
| <i>Advisor:</i> Saša Singer   |             |
| <i>Honors:</i> Summa cum laude  |             |
| <b>B.Sc. in Mathematics, University of Zagreb</b>   | 2010 – 2013 |

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## PROFESSIONAL EXPERIENCE

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

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## INVITED TALKS

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| <b>Explaining with Natural Language</b>  | November 2020 |
| Rising Stars Workshop, UC Berkeley   |               |
| <b>Methods for Analyzing (Current) NLP Models</b>  | March 2020    |
| University of Washington, Guest Lecture in CSE 517   |               |
| <b>Reflecting on Interpretability Desiderata with Visual Commonsense Reasoning</b>                                       | November 2019 |
| University of Washington, Department of Linguistics  |               |
| <b>Teaching Machines Language Understanding</b>  | April 2019    |
| Allen School Women’s Research Day, University of Washington  |               |
| <b>Resolving Abstract Anaphors in Discourse: Uphill Battles with Neural Ranking Models and Automatic Data Extraction</b> |               |
| 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

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### Workshop Organizer

SustaiNLP: 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**)  
ACL 2017 (secondary reviewer), 2019, 2020  
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

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### 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

Leo Zeyu Liu (UW CSE MS student; co-mentor: Noah A. Smith) April 2021 – present  
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

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### 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*

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

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

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

### Peer-Reviewed Publications

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

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

## OPEN-SOURCE SOFTWARE AND DATASETS

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- 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 |