

# Ana Marasović, Curriculum Vitae, October 2022

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## RESEARCH INTERESTS

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Natural Language Processing, Explainable AI, Multimodality

## EMPLOYMENT

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<i>Assistant Professor</i> , University of Utah, School of Computing	July 2022 – present
<i>Young Investigator</i> , Allen Institute for AI	March 2019 – June 2022
<i>Postdoctoral Research</i> , University of Washington Paul G. Allen School of Computer Science & Engineering	January 2020 – June 2022

## EDUCATION

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<b>Ph.D. in Computational Linguistics, Heidelberg University</b> <i>Honors: Magna cum laude</i>	2015 – 2019
<b>M.Sc. in Applied Mathematics, University of Zagreb</b> <i>Honors: Summa cum laude</i>	2013 – 2015
<b>B.Sc. in Mathematics, University of Zagreb</b>	2010 – 2013

## HONORS AND AWARDS

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- ACL 2020 Best Paper Honorable Mention for “Don’t Stop Pretraining: Adapt Language Models to Domains and Tasks”
- Outstanding Reviewer Award at EMNLP 2019 and 2020
- Selected as one of the UC Berkeley EECS 2020 Rising Stars

## INVITED TALKS

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<b>Formalizing Trust in AI</b> NSF AI Institute for Research on Trustworthy AI in Weather, Climate, and Coastal Oceanography (AI2ES)	May 2022
<b>Self-Explaining for Intuitive Interaction with AI</b> Carnegie Mellon University	April 2022
NEC Labs Europe	April 2022
University of Lisbon - Unbabel Seminar	April 2022
University of California Irvine	March 2022
Johns Hopkins University	February 2022
Brown University	February 2022
University of Chicago	February 2022
Ohio State University	February 2022
Purdue University, CS	February 2022
University of Utah	February 2022
<b>On Reducing Human-Authored Free-Text Explanations for Training</b> University College London	December 2021

## Explanation Selection Through The Lens of Free-Text & Contrastive Explanations

USC Machine Learning Symposium

December 2021

Georgia Tech NLP Seminar

November 2021

University of Sheffield Seminar

November 2021

Purdue University, ECE

November 2021

## Contrastive Explanations of NLP Models

November 2021

Keynote at BlackboxNLP: Analyzing and interpreting neural networks for NLP @ EMNLP

## Explaining with Natural Language

October 2021

University of Edinburgh

## Reflecting on Interpretability Desiderata with Visual Commonsense Reasoning

November 2019

University of Washington, Department of Linguistics Seminar

## 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

Keynote at 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

## TEACHING

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### CS 5140/6140: Data Mining

Spring 2023

### CS 5966/6966: Local Explanations for Deep Learning Models

Fall 2022

## GUEST LECTURES

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### A Quick Tour of NLP Explainability

May 2022

University of Washington, *Host*: Yulia Tsvetkov

### Detecting Artifacts with Local Explanations

University of British Columbia, *Host*: Vered Shwartz

March 2022

University of Washington, *Host*: Zaid Harchaoui

March 2022

### Methods for Analyzing (Current) NLP Models

March 2020

University of Washington, *Host*: Noah A. Smith

## MENTORING

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### BS/MS Researchers

Jacob Johnson

Sep 2022 – present

Kaiser Sun with Noah A. Smith → META Residency → JHU PhD

Mar 2020 – June 2022

Millicent Li with Noah A. Smith → META Residency → Northeastern PhD

Mar 2020 – Aug 2021

### AI2 Predoctoral Researchers

Alexis Ross with Matthew E. Peters → MIT PhD

July 2020 – June 2022

### AI2 Interns (PhD students)

Abhilasha Ravichander – Carnegie Mellon University – with Matt Gardner

Jun 2021 – June 2022

Shruti Palaskar – Carnegie Mellon University

May 2021 – June 2022

Mimansa Jaiswal – University of Michigan

Sep 2021 – Dec 2021

Alexander M. Hoyle – University of Maryland – with Noah A. Smith

Jun 2020 – Nov 2020

Sarah Wiegrefe – Georgia Tech – **AI2 Intern of the Year** – with Noah A. Smith

May 2020 – Oct 2020

Zhanming Allan Jie – Singapore Uni. of Technology & Design – with Pradeep Dasigi

Jun 2019 – Aug 2019

## SERVICE

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### Co-organizer

SustainNLP: Workshop on Simple and Efficient Natural Language Processing @ EMNLP 2021  
AllenNLP 2021 Hackathon for Minoritized Communities  
Host of the NLP Highlights Podcast from 2021-2022  
AIPHES Scientific Workshop 2017

### Senior Area Chair

EMNLP 2022

### Monograph Reviewer

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

### Journal Reviewer

TACL 2017 (secondary reviewer), 2021

### Conference Reviewer

EMNLP 2018, 2019 (**outstanding reviewer**), 2020 (**outstanding reviewer**), 2021  
ACL 2017 (secondary reviewer), 2019, 2020, 2021  
EACL 2021, 2023  
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

### Panelist

Panelist at COLING 2022 “Performance and Interpretability Evaluations of Multimodal, Multipurpose, Massive-Scale Models” Workshop  
Panelist after the movie After Yang that is screened as a part of the STEM Education Film Series by Park City Film  
Panelist at ACL Mentorship: “Building NLP datasets” in 2022  
Panelist at SoCal ML & NLP Symposium 2021 (Networking and career paths for under-represented minorities)  
Panelist at undergraduate panel session @ ACL 2020

### Moderator at Conferences

Moderator of a meetup on “Interpretability” @ ACL 2021  
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

### Mentoring at Conferences

Mentor at WiNLP @ ACL 2020  
“Big sibling” at EMNLP 2019, NAACL 2019

### Other Community Service

Co-Lead of the AI2 Employee Resource Group (ERG) for Women and Gender Minorities in 2022  
Member of the AI2 Diversity, Equity and Inclusion Committee in 2020 and 2021  
Reader of 2020 PhD applications at the University of Washington

## PUBLICATIONS

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### Preprints

- Jack Hessel, **Ana Marasović**, Jena D. Hwang, Lillian Lee, Jeff Da, Rowan Zellers, Robert Mankoff, and Yejin Choi. *On Advances in Text Generation from Images Beyond Captioning: A Case Study in Self-Rationalization*. arXiv 2022.

### Peer-Reviewed Publications

- Abhilasha Ravichander, Matt Gardner, and **Ana Marasović**. *CondaQA: A Contrastive Reading Comprehension Dataset for Reasoning about Negation*. EMNLP 2022.
- Alexis Ross, Matthew E. Peters, and **Ana Marasović**. *Does Self-Rationalization Improve Robustness to Spurious Correlations?* EMNLP 2022.
- Shruti Palaskar, Akshita Bhagia, Yonatan Bisk, Florian Metze, Alan W Black, and **Ana Marasović**. *On Advances in Text Generation from Images Beyond Captioning: A Case Study in Self-Rationalization*. Findings of EMNLP 2022.
- **Ana Marasović**\*, Iz Beltagy\*, Doug Downey, and Matthew E. Peters. *Few-Shot Self-Rationalization with Natural Language Prompts*. Findings of NAACL 2022. **\*Equal contributions**.
- Sarah Wiegrefe\* and **Ana Marasović**\*. *Teach Me to Explain: A Review of Datasets for Explainable NLP*. NeurIPS 2021. **\*Equal contributions**.
- Sarah Wiegrefe, **Ana Marasović**, and Noah A. Smith. *Measuring Association Between Labels and Free-Text Rationales*. EMNLP 2021.
- Jesse Dodge, Maarten Sap, **Ana Marasović**, William Agnew, Gabriel Ilharco, Dirk Groeneveld, Margaret Mitchell, and Matt Gardner. *Documenting Large Webtext Corpora: A Case Study on the Colossal Clean Crawled Corpus*. EMNLP 2021.
- 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/>.

## OPEN-SOURCE SOFTWARE AND DATASETS

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- Few-Shot Self-Rationalization with Natural Language Prompts  
<https://github.com/allenai/feb>
- 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>

## REFERENCES

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- Noah A. Smith, [nasmith@cs.washington.edu](mailto:nasmith@cs.washington.edu)
- Yejin Choi, [yejin@cs.washington.edu](mailto:yejin@cs.washington.edu)
- Anette Frank, [frank@cl.uni-heidelberg.de](mailto:frank@cl.uni-heidelberg.de)
- Doug Downey, [dougd@allenai.org](mailto:dougd@allenai.org)