

Ana Marasović, Curriculum Vitae, October 2022

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RESEARCH INTERESTS

Natural Language Processing, Explainable AI, Multimodality

EMPLOYMENT

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

EDUCATION

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

HONORS AND AWARDS

- 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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| Formalizing Trust in AI NSF AI Institute for Research on Trustworthy AI in Weather, Climate, and Coastal Oceanography (AI2ES) | May 2022 |
| Self-Explaining for Intuitive Interaction with AI 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 |
| On Reducing Human-Authored Free-Text Explanations for Training 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

CS 5966/6966: Local Explanations for Deep Learning Models

Fall 2022

GUEST LECTURES

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

AI2 Predoctoral Researchers

Alexis Ross with Matthew E. Peters

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

UW BS/MS Students

Kaiser Sun with Noah A. Smith

Mar 2020 – June 2022

Millicent Li with Noah A. Smith

Mar 2020 – Aug 2021

SERVICE

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
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 “Performance and Interpretability Evaluations of Multimodal, Multipurpose, Massive-Scale Models” COLING 2022 Workshop
Panelist after the movie After Yang that is screened as a part of the STEM Education Film Series organized 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

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.
- 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*. arXiv 2022.

Peer-Reviewed Publications

- **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

- 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

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