

Ana Marasović, Curriculum Vitae, August 2022

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Merrill Engineering
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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 Artificial Intelligence

March 2019 – June 2022

Mentors: Noah A. Smith, Yejin Choi

Postdoctoral Research, University of Washington

January 2020 – June 2022

Paul G. Allen School of Computer Science & Engineering

Host: Noah A. Smith

EDUCATION

Ph.D. in Computational Linguistics, Heidelberg University

2015 – 2019

Thesis: “Deep Learning With Sentiment Inference For Discourse-Oriented Opinion Analysis”

Advisor: Anette Frank

Honors: Magna cum laude

M.Sc. in Applied Mathematics, University of Zagreb

2013 – 2015

Honors: Summa cum laude

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

Formalizing Trust in AI

May 2022

NSF AI Institute for Research on Trustworthy AI in Weather, Climate, and Coastal Oceanography (AI2ES)

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

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| Purdue University, CS | February 2022 |
| University of Utah | February 2022 |
| On Reducing Human-Authored Free-Text Explanations for Training | December 2021 |
| University College London | |
| 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 |

GUEST LECTURES

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| A Quick Tour of NLP Explainability | May 2022 |
| University of Washington, <i>Host</i> : Yulia Tsvetkov | |
| Detecting Artifacts with Local Explanations | |
| University of Washington, <i>Host</i> : Yulia Tsvetkov | May 2022 |
| University of British Columbia, <i>Host</i> : Vered Shwartz | March 2022 |
| University of Washington, <i>Host</i> : Zaid Harchaoui | March 2022 |
| Methods for Analyzing (Current) NLP Models | March 2020 |
| University of Washington, <i>Host</i> : Noah A. Smith | |

MENTORING

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| 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 in 2021
AIPHES Scientific Workshop 2017

Conference 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

ACL Rolling Review (from November 2021)
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 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

- 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