Ana Marasović, Curriculum Vitae, November 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**	January 2020 – June 2022
Paul G. Allen School of Computer Science & Engineering	

Education

Ph.D. in Computational Linguistics, Heidelberg University	2015 – 2019
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

- SoCal NLP Symposium 2022 Best Paper Award for "CondaQA: A Contrastive Reading Comprehension Dataset for Reasoning about Negation"
- 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

Title TBD

Utah Data Science Seminar	February 2023
University of Mannheim	TBD 2023

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
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

Teaching

| **CS 5140/6140: Data Mining** | Spring 2023 |
| **CS 5966/6966: Local Explanations for Deep Learning Models** | Fall 2022 |

Guest Lectures

NLP with (Almost) No Training Data — Nov 2022

University of Utah, CS 5340/6340, *Host*: Ellen Riloff

Towards Trustworthy Natural Language Processing: On Intuitive Interaction and Rigorous Validation — Sep 2022

University of Utah, CS 3020 Research Forum, *Host*: Kobus Van Der Merwe

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

Funding

Allen Institute for AI, *Research Gift*, $100,000   Oct 2022
    Title: "Expressing Uncertainty During Explanation Generation"

Mentoring

BS/MS Researchers

Mugdha Abhyankar	Jan 2023 – present
Rishanth Rajendhran	Nov 2022 – present
Jacob Johnson	Sep 2022 – present
Kaiser Sun with Noah A. Smith → META Residency → JHU PhD	Mar 2020 – present
Millicent Li with Noah A. Smith → META Residency → Northeastern PhD	Mar 2020 – Aug 2021

Student Collaborators

Ashim Gupta	Oct 2022 – present
Akansha Kalra	Nov 2022 – present

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 Wiegreffe – 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

Co-organizer

    SustaiNLP: 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 Scientfic Workshop 2017

Senior Area Chair

    ACL 2023
    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

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. **(Received a Best Paper Award at the SoCal NLP Symposium 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 Wiegreffe* and **Ana Marasović***. *Teach Me to Explain: A Review of Datasets for Explainable NLP.* NeurIPS 2021. ***Equal contributions.**

- Sarah Wiegreffe, **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