Ana Marasović, Curriculum Vitae, December 2023

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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

- ACL 2023 Best Paper Award
- ACL 2023 Best Senior Area Chair Award
- SoCal NLP Symposium 2022 Best Paper Award
- ACL 2020 Best Paper Honorable Mention Award
- UC Berkeley EECS 2020 Rising Star
- EMNLP 2020 Outstanding Reviewer Award
- EMNLP 2019 Outstanding Reviewer Award

Invited Talks

Challenges in Fostering (Dis)Trust in AI	Oct 2023
Keynote at the "Trust Perspectives in Machine Learning, Law, and Public Policy" workshop organized by the Institute for Data, Econometrics, Algorithms, and Learning, located at Northwestern University	
"We propose `<insert an explainability method>` to increase human trust in AI": What does this mean and how to go about it?	April 2023
University of Maryland	
"AI" That Masters Language Could Reason about Negation	February 2023
University of Utah Data Science Seminar	
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 5966/6966: Local Explanations for Deep Learning Models	Fall 2023, 2022
CS 5140/6140: Data Mining	Spring 2023

Guest Lectures & Conference Tutorials & Presentations at Local Events

NAACL'24 Tutorial "Explanation in the Era of Large Language Models"	June 2024

Ingredients of Generative AI

University of Utah, Research Challenges in Computing Seminar, *Host*: Saday Sadayappan	Nov 2023
University of Utah, DELPHI Data Science Symposium	Oct 2023
University of Utah, The Osher Lifelong Learning Institute Lunch and Learn	Oct 2023

NLP with (Almost) No Training Data

University of Utah, MATH 4100 / COMP 5360, *Host*: Kate Isaacs	March 2023
University of Utah, CS 5340/6340, *Host*: Ellen Riloff	Nov 2022

Towards Trustworthy NLP: On Intuitive Interaction and Rigorous Validation

University of Utah, CS 3020 Research Forum, *Host*: Kobus Van Der Merwe   Sep 2022

A Quick Tour of NLP Explainability

University of Washington, *Host*: Yulia Tsvetkov   May 2022

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

University of Washington, *Host*: Noah A. Smith   March 2020

Funded Proposals

Allen Institute for AI, *Research Gift*, $100,000   Oct 2022

Title: "Expressing Uncertainty During Explanation Generation"

Mentoring

Utah PhD Students

Fateme Hashemi Chaleshtori	January 2023 – present
Jacob Johnson	Aug 2023 – present
Nathan Stringham	Aug 2023 – present

Utah MS Researchers

Rishanth Rajendhran	Nov 2022 – present
Mugdha Abhyankar	Jan 2023 – May 2023

Utah BS Researchers

Byron Liu	July 2023 – present
Jordan Tan	July 2023 – Aug 2023
Dana Ahn	March 2023 - Aug 2023
Jacob Johnson	Nov 2022 – Aug 2023

Utah PhD Student Collaborators

Michael Clemens	July 2023 – present
Ashim Gupta	Oct 2022 – present
Akansha Kalra	Nov 2022 – December 2022

UW BS/MS Researchers

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

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

Committee Member

Zhenduo Wang

Mattia Medina-Grespan

Zhichao Xu

Peter Hase (UNC Chapel Hill)

Marcos Treviso (University of Lisbon)

Prince Osei Aboagye

Tianyu Jiang

Senior Area Chair

ACL 2023 **(Best Senior Area Chair)**

EMNLP 2022

Co-organizer

TeachingNLP: Workshop on Teaching Natural Language Processing (*proposal under the review*)

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

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 the Utah Digital Health Initiative "Generative AI in Health Sciences Research" panel in Nov 2023

Panelist at a career panel at 2023 EACL Student Research Workshop (SRW)

Panelist for the screening of the movie "After Yang" for the STEM Education Film Series by Park City Film in Sep 2022

Panelist at ACL Mentorship: "Building NLP datasets" in Aug 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 Service

Presented "Preparing a Research Statement" at 2023 KSoC Graduate Open House

Served on Fall 2023 PhD admissions committee

Organized and moderated "KSoC Women Alumni Panel" during the graduate visit days in Feb 2023

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

- Ashim Gupta, Rishanth Rajendhran, Nathan Stringham, Vivek Srikumar, and **Ana Marasović**. *Whispers of Doubt Amidst Echoes of Triumph in NLP Robustness.* arXiv:2311.09694

- Fateme Hashemi Chaleshtori, Atreya Ghosal, and **Ana Marasović**. *On Evaluating Explanation Utility for Human-AI Decision-Making in NLP.* The workshop "XAI in Action: Past, Present, and Future Applications" co-colated with NeurIPS 2023.

- Jacob K. Johnson and **Ana Marasović**. *How Much Consistency Is Your Accuracy Worth?* The Workshop on Analyzing and Interpreting Neural Networks for NLP (BlackboxNLP) co-located with EMNLP 2023.

- Jack Hessel, **Ana Marasović**, Jena D. Hwang, Lillian Lee, Jeff Da, Rowan Zellers, Robert Mankoff, and Yejin Choi. *Do Androids Laugh at Electric Sheep? Humor "Understanding" Benchmarks from The New Yorker Caption Contest.* ACL 2023. **(Received a Best Paper Award)**

- 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 Data Track 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