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
  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
  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 2022

Guest Lectures

A Quick Tour of NLP Explainability May 2022
    University of Washington, *Host*: Yulia Tsvetkov

Detecting Artifacts with Local Explanations
    University of Washington, *Host*: Yulia Tsvetkov May 2022
    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 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

UW BS/MS Students
    Kaiser Sun with Noah A. Smith Mar 2020 – June 2022
    Millicent Li with Noah A. Smith Mar 2020 – Aug 2021

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 in 2021

AIPHES Scientfic 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 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

Mentor at the ACL mentorship session: "Building NLP Datasets" in 2022

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

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 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