

Ana Marasović, Curriculum Vitae, December 2021

Allen Institute for Artificial Intelligence (AI2)
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RESEARCH INTERESTS

Natural Language Processing, Explainable AI, Multimodality

EDUCATION

Ph.D. in Computational Linguistics, Heidelberg University	2015 – 2019
<i>Thesis:</i> “Deep Learning With Sentiment Inference For Discourse-Oriented Opinion Analysis”	
<i>Advisor:</i> Anette Frank	
<i>Honors:</i> Magna cum laude	
M.Sc. in Applied Mathematics, University of Zagreb	2013 – 2015
<i>Honors:</i> 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

PROFESSIONAL EXPERIENCE

Postdoctoral Research, University of Washington	January 2020 – present
Paul G. Allen School of Computer Science & Engineering	
<i>Host:</i> Noah A. Smith	
Postdoctoral Research, Allen Institute for Artificial Intelligence	March 2019 – present
<i>Mentors:</i> Noah A. Smith, Yejin Choi	
Research Intern, Amazon Berlin	Summer 2017
<i>Topic:</i> Neural sentiment domain adaption with multiple source domains	
Research Intern, Poslovna Inteligencija	Summer 2014
<i>Topic:</i> Churn prediction in telecom using social network analysis	

INVITED TALKS

Title TBD	May 2022
CMU (Carnegie Mellon University)	
Self-Explainability for Intuitive and Controllable Interaction: On Reducing Human-Authored Free-Text Explanations for Training	December 2021
UCL (University College London)	
Explanation Selection Through The Lens of Free-Text & Contrastive Explanations	November 2021
Georgia Tech NLP Seminar	

University of Sheffield Seminar

Contrastive Explanations of NLP Models

November 2021

Keynote at BlackboxNLP: Analyzing and interpreting neural networks for NLP @ EMNLP

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

INVITATIONS TO RESEARCH EVENTS

Trustworthy NLP Workshop, Google Research

October 2021

An event with 30 academics and 30 Googlers discussing trustworthy NLP

Machine Learning Impact Initiative Summit, Northwestern University

June 2021

I helped devise a research roadmap focused on the impacts of machine learning on people

Seminar Series, Google Research

October 2020

A discussion about our paper "Don't stop pretraining"

GUEST LECTURES

Title TBD

Spring 2022

University of Washington, *Host*: Yulia Tsvetkov

Title TBD

February 2022

University of British Columbia, *Host*: Vered Shwartz

Methods for Analyzing (Current) NLP Models

March 2020

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

MENTORING

Mentored 9 students (1 BS, 2 MS, and 6 PhD); 5 submitted papers to top-tier conferences (5 accepted to date)

AI2 Predoctoral Researchers

Alexis Ross with Matthew E. Peters

July 2020 – present

AI2 Interns (PhD students)

Mimansa Jaiswal – University of Michigan

Sep 2021 – present

Abhilasha Ravichander – Carnegie Mellon University – with Matt Gardner

Jun 2021 – present

Shruti Palaskar – Carnegie Mellon University

May 2021 – present

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 – present

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

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 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

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

- **Ana Marasović***, Iz Beltagy*, Doug Downey, and Matthew E. Peters. *Few-Shot Self-Rationalization with Natural Language Prompts*. ***Equal contributions**.

Peer-Reviewed Publications

- 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

- 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