

Ana Marasović, Curriculum Vitae, December 2020

Allen Institute for Artificial Intelligence (AI2)
University of Washington
www.anamarasovic.com
anam@allenai.org

2157 N Northlake Way, Suite 110
Paul G. Allen Center, Office 410

RESEARCH INTERESTS

Natural Language Processing, Explainable AI, Multimodality

EDUCATION AND HONORS

- 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
Thesis: “Latentna Semantička Analiza, Varijante i Primjene”
Advisor: Saša Singer
Honors: Summa cum laude
- B.Sc. in Mathematics, University of Zagreb** 2010 – 2013

PROFESSIONAL EXPERIENCE

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

INVITED TALKS

- Explaining with Natural Language** November 2020
Rising Stars Workshop, UC Berkeley
- Methods for Analyzing (Current) NLP Models** March 2020
University of Washington, Guest Lecture in CSE 517
- Reflecting on Interpretability Desiderata with Visual Commonsense Reasoning** November 2019
University of Washington, Department of Linguistics
- 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
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

SERVICE

Workshop Co-organizer

SustainNLP: Workshop on Simple and Efficient Natural Language Processing @ EMNLP 2021
AIPHES Scientific Workshop 2017

Community Service

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
Mentor at WiNLP @ ACL 2020
Panelist at undergraduate panel session @ ACL 2020
“Big sibling” at EMNLP 2019, NAACL 2019
Reader of 2020 PhD applications at the University of Washington

Conference Reviewer

EMNLP 2018, 2019 (**outstanding reviewer**), 2020 (**outstanding reviewer**)
ACL 2017 (secondary reviewer), 2019, 2020
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

Journal Reviewer

Transactions of ACL 2017 (secondary reviewer)

MENTORING

AI2 Predoctoral Researchers

Alexis Ross (co-mentoring with Matthew E. Peters) July 2020 – present

AI2 Interns

Alexander M. Hoyle (co-mentored with Noah A. Smith) June 2020 – November 2020
Sarah Wiegrefe (**AI2 Intern of the Year**; co-mentored with Noah A. Smith) May 2020 – October 2020
Allan Jie (co-mentored with Pradeep Dasigi) June 2019 – August 2019

UW Undergraduate Students

Kaiser Sun (UW CSE BS student; co-mentoring with Noah A. Smith) March 2020 – present
Millicent Li (UW CSE BS student; co-mentoring with Noah A. Smith) March 2020 – present

PUBLICATIONS

Preprints

- [1] Alexis Ross, [Ana Marasović](#), and Matthew E. Peters. **Explaining NLP Models via Minimal Contrastive Editing (MiCE)**. arXiv:2012.13985
- [2] Sarah Wiegrefe, [Ana Marasović](#), and Noah A. Smith. **Measuring Association Between Labels and Free-Text Rationales**. arXiv:2010.12762

Peer-reviewed Publications

- [3] Alon Jacovi, [Ana Marasović](#), Tim Miller, and Yoav Godlberg. **Formalizing Trust in Artificial Intelligence: Prerequisites, Causes and Goals of Human Trust in AI**. FAccT 2021.
- [4] [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.
- [5] 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.
- [6] 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)**
- [7] 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.
- [8] [Ana Marasović](#) and Anette Frank. **SRL4ORL: Improving Opinion Role Labeling Using Multi-Task Learning with Semantic Role Labeling**. NAACL 2018.
- [9] 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**. International Conference on Social Networks Analysis, Management and Security (SNAMS) 2018.
- [10] [Ana Marasović](#), Leo Born, Juri Opitz, and Anette Frank. **A Mention-Ranking Model for Abstract Anaphora Resolution**. EMNLP 2017.
- [11] [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.
- [12] [Ana Marasović](#) and Anette Frank. **Multilingual Modal Sense Classification using a Convolutional Neural Network**. Workshop on Representation Learning for NLP (Repl4NLP) 2016.

Blog Posts

- [13] [Ana Marasović](#). **NLP's Generalization Problem, and How Researchers Are Tackling It**. The Gradient 2018.
- [14] [Ana Marasović](#). **BERT-base Transformer Forward Pass**. Available at <https://www.anamarasovic.com/bert-forward/>.

TECHNICAL SKILLS

- Preferred programming language: Python
- Preferred deep learning frameworks: AllenNLP, PyTorch, Transformers library

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>

PARTICIPATION IN SUMMER SCHOOLS

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| • Deep Learning Summer School (DLSS), Montreal, Canada | 2017 |
| • Reinforcement Learning Summer School (RLSS), Montreal, Canada | 2017 |
| • Machine Learning Summer School (MLSS), Cadiz, Spain | 2016 |
| • Summer School on Integrating Vision & Language (iV&L): Deep Learning, Malta | 2016 |