

William B. Held

MACHINE LEARNING (ML) & NATURAL LANGUAGE PROCESSING (NLP)

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Education

Georgia Institute of Technology

Atlanta, GA, United States

3.83 GPA Ph.D. in Machine Learning

Aug. 2021 - PRESENT

- Advised by Prof. Diyi Yang; Research on NLP and ML for Low-Resource Languages, Language Variants, and Dialects
- NSF Graduate Research Fellowship Program Honorable Mention Recipient.

New York University Abu Dhabi

Abu Dhabi, United Arab Emirates

3.73 GPA B.S. in Computer Science with a concentration in Economics

Aug. 2015 - May 2019

- Research focused on semantic relation extraction and Arabic computational linguistics under Prof. Nizar Habash

Highlighted Work

A Material Lens on Coloniality in NLP

William Held, Camille Harris, Michael Best, Diyi Yang

Pre-Print

2023

Can Large Language Models Transform Computational Social Science?

Caleb Ziems, William Held, Omar Shaikh, Jiaao Chen, Zhehao Zhang, Diyi Yang

Journal of Computational Linguistics

2023

Multi-VALUE: A Framework for Cross-Dialectal English NLP

William Held[🔥], Caleb Ziems[🔥], Jingfeng Yang, Jwala Dhamala, Rahul Gupta, Diyi Yang

[🔥] Equal Contribution

61st Annual Meeting of the Association for Computational Linguistics

2023

- Main Conference, Long Paper Acceptance Rate: 20.75%

DAMP: Doubly Aligned Multilingual Parser for Task-Oriented Parsing

William Held, Chris Hidey, Fei Liu, Eric Zhu, Rahul Goel, Diyi Yang, Rushin Shah

61st Annual Meeting of the Association for Computational Linguistics

2023

- Main Conference, Long Paper Acceptance Rate: 20.75%

Professional Experience

Meta AI

Menlo Park, CA, United States

Research Scientist Intern - GenAI Research

May - August 2023

- Worked on methods to improve the Multilinguality of the LLaMA Language Models.

Google Research

New York, NY, United States

Research Intern - Neural Semantic Parsing

May - August 2022

- Worked on methods to help extend Google Assistant's Multilingual capabilities. Work published in our paper: "DAMP".

Sunshine/Lumi Labs

Palo Alto, CA, United States

Software Engineer - Machine Learning

June 2019 - June 2021

- Worked with Prof. Dan Jurafsky on coreference resolution. Work published in our paper: "Focus on What Matters".
- 9th engineer hired to build out AI-powered applications focused on contact management

Foursquare

New York, NY, United States

Machine Learning Engineer Intern - Pilgrim Data Team

May 2018 - Aug 2018

Knotch

New York, NY, United States

Data Scientist - Knowledge Search Engine

May 2017 - February 2018

Quorum Analytics

Washington, D.C., United States

Software Engineering Intern - User Accounts and Permissions

January - May 2017

Sandia National Laboratories

Albuquerque, NM, United States

Research Intern - Computer Science Research Institute

April - August 2015 & 2016

Service

Reviewer

EMNLP 2023, ACL 2023, ICML 2023, EACL 2023, NeurIPS 2022

Organizer

2021 Georgia Tech Graduate Application Support (GT-GAS)

Volunteer Coordinator

The 2021 Conference on Empirical Methods in Natural Language Processing

Languages

Programming Scala(Spark), Python(PyTorch, Tensorflow), Javascript(React) **Natural** English, Arabic

All Publications

A Material Lens on Coloniality in NLP

William Held, Camille Harris, Michael Best, Diyi Yang

Pre-Print

2023

Task-Agnostic Low-Rank Adapters for Unseen English Dialects

Zedian Xiao, William Held, Yanchen Liu, Diyi Yang

The 2023 Conference on Empirical Methods in Natural Language Processing

2023

DADA: Dialect Adaptation via Dynamic Aggregation of Linguistic Rules

Yanchen Liu, William Held, Diyi Yang

The 2023 Conference on Empirical Methods in Natural Language Processing

2023

TADA : Task Agnostic Dialect Adapters for English

William Held, Caleb Ziems, Diyi Yang

61st Annual Meeting of the Association for Computational Linguistics

2023

- Findings, Short Paper Acceptance Rate: 35.58%

Can Large Language Models Transform Computational Social Science?

Caleb Ziems, William Held, Omar Shaikh, Jiaao Chen, Zhehao Zhang, Diyi Yang

Journal of Computational Linguistics

2023

Modeling Cross-Cultural Pragmatic Inference with Codenames Duet

Omar Shaikh, Caleb Ziems, William Held, Aryan Pariani, Fred Morstatter, Diyi Yang

61st Annual Meeting of the Association for Computational Linguistics

2023

- Findings, Long Paper Acceptance Rate: 41.89%

Multi-VALUE: A Framework for Cross-Dialectal English NLP

William Held[🔥], Caleb Ziems[🔥], Jingfeng Yang, Jwala Dhamala, Rahul Gupta, Diyi Yang

[🔥] Equal Contribution

61st Annual Meeting of the Association for Computational Linguistics

2023

- Main Conference, Long Paper Acceptance Rate: 20.75%

DAMP: Doubly Aligned Multilingual Parser for Task-Oriented Parsing

William Held, Chris Hidey, Fei Liu, Eric Zhu, Rahul Goel, Diyi Yang, Rushin Shah

61st Annual Meeting of the Association for Computational Linguistics

2023

- Main Conference, Long Paper Acceptance Rate: 20.75%

On Second Thought, Let's Not Think Step by Step! Bias and Toxicity in Zero-Shot Reasoning

Omar Shaikh, Hongxin Zhang, William Held, Michael Bernstein, Diyi Yang

61st Annual Meeting of the Association for Computational Linguistics

2023

- Main Conference, Long Paper Acceptance Rate: 20.75%

Shapley Head Pruning: Identifying and Removing Interference in Multilingual Transformers

William Held, Diyi Yang

17th Conference of the European Chapter of the Association for Computational Linguistics

2022

- Main Conference, Long Paper Acceptance Rate: 24.7%

Focus on what matters: Applying Discourse Coherence Theory to Cross Document Coreference

William Held, Dan Iter, Dan Jurafsky

Proceedings of the 2021 Conference on Empirical Methods in Natural Language Processing

2021

- Selected for Oral Presentation, Long Paper Acceptance Rate: 24.6%

The Effectiveness of Simple Hybrid Systems for Hypernym Discovery

William Held, Nizar Habash

Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics

2019

- Short Paper Acceptance Rate: 18.2%

Transitioning Green-Gauss Gradients to the Kokkos Framework

William Held, Andrew Bradley

Sandia National Labs Center for Computing Research Summer Proceedings

2016

A Testing Framework for a Hybrid Triangular Solver

William Held, Andrew Bradley

Sandia National Labs Center for Computing Research Summer Proceedings

2015

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