Matthew Finlayson

mattbnfin@gmail.com mattf1n.github.io

EDUCATION Harvard University

Sep 2015–May 2021

 ${\rm A.B.\ Cum\ Laude\ in\ Field/Highest\ Honors\ in\ Computer\ Science\ and\ Linguistics\ (Joint),}$

GPA 3.9/4.0.

RESEARCH Allen Institute for AI (AI2), Aristo

Aug 2021-Present

Pre-doctoral researcher advised by Peter Clark and Ashish Sabharwal.

Harvard University Computer Science

Jan 2019–May 2021

Undergraduate researcher advised by Stuart Shieber and Yonatan Belinkov.

Publications

[1] "Līla: A Unified Benchmark for Mathematical Reasoning"

Matthew Finlayson, Swaroop Mishra, Pan Lu, Leonard Tang, Sean Welleck, Chitta Baral, Tanmay Rajpurohit, Oyvind Tafjord, Ashish Sabharwal, Peter Clark, and Ashwin Kalyan.

EMNLP 2022.

[2] "What Makes Instruction Learning Hard? An Investigation and a New Challenge in a Synthetic Environment"

Matthew Finlayson, Kyle Richardson, Ashish Sabharwal, and Peter Clark. EMNLP 2022 oral presentation.

[3] "Causal Analysis of Syntactic Agreement Mechanisms in Neural Language Models" Matthew Finlayson, Aaron Mueller, Sebastian Gehrmann, Stuart Shieber, Tal Linzen, and Yonatan Belinkov. ACL 2021 oral presentation.

[4] "Decomposed Prompting: A Modular Approach for Solving Complex Tasks"

Tushar Khot, Harsh Trivedi, **Matthew Finlayson**, Yao Fu, Kyle Richardson, Peter Clark, and Ashish Sabharwal.

ArXiv 2022.

Invited talks

Seminar on Formal Languages and Neural Networks (FLaNN) Nov 2022

What can formal languages tell us about instruction learning?

Allen Institute for AI (AI2)

Sep 2022

A Unified Benchmark for Mathematical Reasoning

TEACHING Harvard School of Engineering and Applied Sciences

CS-51: Abstraction and Design in Computation Jan 2020–May 2021

Head Teaching Fellow

CS-187: Computational Linguistics and NLP Sep 2019–Dec 2020

Curriculum developer, Teaching Fellow

SERVICE ACL, EMNLP, NeurIPS, MathNLP, MATH-AI 2022-2023

Reviewing

EXPERIENCE Microsoft, Natural Language Experiences, SWE Intern Jun-Aug 2020

Improved and personalized text prediction in Microsoft Office.

Hikma Health, SWE Intern Jun-Aug 2019

Developed a mobile electronic health record system for health care professionals working with refugees.

Other

Harvard First-Year Outdoor Program

Aug~2018--May~2021

Mentored incoming first-year students on week-long backpacking trips.

Harvard Sailing Club

Aug~2018--May~2021

Vice President. Taught sailing basics to beginners weekly.

Harvard Outing Club

Aug 2015–May 2021

Led regular hiking trips to improve outdoor access for Harvard affiliates.

Computer languages: Python, OCaml, few-shot prompting;)

Human languages: English, Tagalog, some Vietnamese, some Spanish

Hobbies: mechanical keyboards, configuring Vim, camping, sailing, sketching