Alexis J. Ross

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https://alexisjihyeross.github.io/

Education

Massachusetts Institute of Technology, Cambridge, Massachusetts — Sept 2022 – Present
Ph.D. in EECS
Advisor: Jacob Andreas

Harvard University, Cambridge, Massachusetts — Sept 2016 – May 2020
A.B. with Honors in Computer Science and Philosophy (Joint)

Research Experience

Allen Institute for AI (AI2), AllenNLP — July 2020 – July 2022
Predoctoral Researcher
Mentors: Ana Marasović and Matthew E. Peters

Harvard University, Computer Science and Philosophy — Sept 2019 – May 2020
Mentors: Himabindu Lakkaraju and Bernhard Nickel
Senior Thesis: Using Linear Approximations to Explain Complex, Blackbox Classifiers

Microsoft Research — May 2019 – Aug 2019
Research Intern, Project Hanover
Mentor: Tristan Naumann
Project: Machine Reading for Precision Medicine

Johns Hopkins, Center for Language and Speech Processing — June 2018 – Aug 2018
Undergraduate Researcher, JSALT Workshop
Mentor: Ellie Pavlick
Project: General-Purpose Sentence Representation Learning

Harvard University, Cognitive Neuropsychology Laboratory — Feb 2017 – Aug 2017
Research Assistant
Mentors: Gilles Vannuscorps and Alfonso Caramazza
Project: Object Orientation Perception

Publications

[1] Does Self-Rationalization Improve Robustness to Spurious Correlations?.
Alexis Ross, Matthew Peters, Ana Marasović. *EMNLP, 2022.*

[2] Tailor: Generating and Perturbing Text with Semantic Controls.
Alexis Ross*, Tongshuang Wu*, Hao Peng, Matthew Peters, Matt Gardner. *ACL, 2022.*

[3] Learning Models for Actionable Recourse.
Alexis Ross, Himabindu Lakkaraju, and Osbert Bastani. *NeurIPS, 2021.*

[4] Competency Problems: On Finding and Removing Artifacts in Language Data.
Matt Gardner*, William Merrill*, Jesse Dodge, Matthew E. Peters, **Alexis Ross**, Sameer Singh, Noah Smith. *EMNLP, 2021.*

[5] Explaining NLP Models via Minimal Contrastive Editing (MiCE).
Alexis Ross, Ana Marasović, and Matthew E. Peters. *Findings of ACL, 2021.*

[6] How well do NLI models capture verb veridicality?
Alexis Ross and Ellie Pavlick. *EMNLP 2019.* **Oral presentation**.

[7] Probing what different NLP tasks teach machines about function word comprehension.
Najoung Kim, Roma Patel, Adam Poliak, Alex Wang, Patrick Xia, R Thomas McCoy, Ian Tenney, **Alexis Ross**, Tal Linzen, Benjamin Van Durme, Samuel R Bowman, and Ellie Pavlick. **SEM 2019.* **Best Paper Award**.

Selected Honors

2023 **NSF Graduate Research Fellowship**
2023 **Third Prize, Inverse Scaling Competition**
2022 **MIT Shillman Fellowship**
2020 **Thomas T. Hoopes Prize** "for extraordinary undergraduate research" (senior thesis)
2019 **EMNLP Student Travel Scholarship**
2018 **Certificate of Distinction in Teaching** for a student evaluation of 4.8/5.0

Invited Talks

Apr. 2023 Towards Model Development with Tailored Supervision, **IST & Unbabel Seminars**
Aug. 2021 Generating and Perturbing Text with Semantic Controls, **AI2 (All Hands)**

Service

2022 **Co-organizer**, cs-sop.org, resource for CS PhD applicants
2022 **Mentor**, MIT EECS Graduate Application Assistance Program (GAAP)
2021 **Co-organizer** and frequent host, NLP Highlights Podcast, over 9000 views in October
2021 **Co-organizer**, AllenNLP Hacks, a hackathon for minoritized students
Presented workshop: "My First NLP Project"
2021 **Secondary Reviewer**, ACL
2019 **Mentor**, Harvard Women in Computer Science

Teaching Experience

CS 121: Introduction to the Theory of Computation Sept 2018 – Dec 2018
Teaching Fellow, Harvard School of Engineering and Applied Sciences
Instructor: Boaz Barak

Other Experience

Solo, Chamber, and Orchestral Violinist 2002 – Present
2023 – MIT Chamber Music Society
2016 – 2018 Violinist in the Harvard-Radcliffe Orchestra
2016 – 2020 Chamber Music Performance at Harvard. Coaches: Parker Quartet
2014 – 2016 Juilliard Pre-College, Diploma in Violin Performance. Teacher: Ann Setzer
2013 – 2015 Summers at the Meadowmount School of Music

Mental Health Advocacy and Counseling, Harvard University 2017 – 2020
2017 – 2020 Events Co-Chair, Student Mental Health Liaisons
2018 – 2020 Peer Mental Health Counselor, Room 13