

Alane Suhr

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University of California, Berkeley, Berkeley, CA
Assistant Professor, EECS

beginning Summer 2023

Allen Institute for Artificial Intelligence, Seattle, WA
Young Investigator, Mosaic

2022–present

Research Interests

My research interests span natural language processing, machine learning, and computer vision. I build systems that use language to interact with people, design models and datasets that address problems in language grounding, e.g., to images, and develop learning algorithms for acquiring language in interaction.

Education

Cornell University, New York, NY, USA
PhD in Computer Science
Advisor: Yoav Artzi

2016–2022

Ohio State University, Columbus, OH, USA
BS in Computer Science & Engineering with Honors, *summa cum laude*
Minor in Linguistics

2012–2016

Research and Software Engineering Positions

Graduate Research Assistant, Cornell University
Department of Computer Science
Advisor: Yoav Artzi

2017–2022

Research Intern, Google
Google AI Language
Collaborators: Ming-Wei Chang, Peter Shaw, and Kenton Lee

2019

Undergraduate Research Assistant, Ohio State University
Department of Linguistics
Advisor: Marie-Catherine de Marneffe

2015–2016

Software Engineering Intern, Google
Adwords Express
Google Shopping

2015

2014

Software Development Intern, Kosada, Inc.
Vuo
Timestream (iOS development)

2013

2012

Awards and Honors

Paper Awards

Best Long Paper Award (at EMNLP)	2022
Outstanding Paper Award (at NAACL)	2018
Best Resource Paper (at ACL)	2017

Fellowships

Facebook PhD Fellowship	2020–2022
National Science Foundation Graduate Research Fellowship	2018–2022
AI2 Key Scientific Challenges Award	2017
ParIAI Research Award	2017
AWS Cloud Credits for Research	2017
Microsoft Research Women's Fellowship	2017
Eminence Fellowship (Ohio State University)	2012–2016

Service

Outstanding TA Award (Cornell CIS)	2018
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Publications

Preprints

Kolby Nottingham, Prithviraj Ammanabrolu, [Alane Suhr](#), Yejin Choi, Hannaneh Hajishirzi, Sameer Singh, and Roy Fox. Do embodied agents dream of pixelated sheep? Embodied decision making using language-guided world modelling. 2023.

[Alane Suhr](#) and Yoav Artzi. Continual learning for instruction following from realtime feedback. 2023.

Conference and Journal Publications

Anya Ji, Noriyuki Kojima*, Noah J. Rush*, [Alane Suhr](#)*, Wai Keen Vong, Robert Hawkins, and Yoav Artzi. Abstract reasoning with tangram puzzles. In *EMNLP*, 2022. **Best Long Paper Award**.

Noriyuki Kojima, [Alane Suhr](#), and Yoav Artzi. Continual learning for grounded instruction generation by observing human behavior. *TACL*, 2021.

Anna Effenberger, Rhia Singh, Eva Yan, [Alane Suhr](#), and Yoav Artzi. Analysis of language change in collaborative instruction following. *Findings of EMNLP*, 2021.

[Alane Suhr](#), Ming-Wei Chang, Peter Shaw, and Kenton Lee. Exploring Unexplored Generalization Challenges for Cross-Database Semantic Parsing. *ACL*, 2020.

[Alane Suhr](#), Claudia Yan, Charlotte Schluger*, Stanley Yu*, Hadi Khader**, Marwa Mouallem**, Iris Zhang, and Yoav Artzi. Executing instructions in situated collaborative interactions. *EMNLP-IJCNLP*, 2019.

[Alane Suhr](#)*, Stephanie Zhou*, Ally Zhang, Iris Zhang, Huajun Bai, and Yoav Artzi. A corpus for reasoning about natural language grounded in photographs. *ACL*, 2019.

Howard Chen, [Alane Suhr](#), Dipendra Misra, Noah Snaveley, and Yoav Artzi. Touchdown: Natural language navigation and spatial reasoning in visual street environments. *CVPR*, 2019.

[Alane Suhr](#) and Yoav Artzi. Situated mapping of sequential instructions to actions with single-step reward observation. *ACL*, 2018.

[Alane Suhr](#), Srinivasan Iyer, and Yoav Artzi. Learning to map context-dependent sentences to executable formal queries. *NAACL-HLT*, 2018. **Outstanding Paper Award**.

Alane Suhr, Mike Lewis, James Yeh, and Yoav Artzi. A corpus of natural language for visual reasoning. *ACL*, 2017.
Best Resource Paper Award.

Workshop Papers and Other Publications

Anna Effenberger, Rhia Singh, Eva Yan, Alane Suhr, and Yoav Artzi. Analysis of language change in collaborative instruction following. *SCiL* extended abstract, 2022.

Alane Suhr, Mike Lewis, James Yeh, and Yoav Artzi. Evaluating visual reasoning through grounded language understanding. *AI Magazine*, 2018.

Stephanie Zhou*, Alane Suhr*, and Yoav Artzi. Visual reasoning with natural language. *AAAI Symposium on Natural Communication for Human-Robot Collaboration*, 2017.

*,** *Equal contribution*

Invited Talks, Posters, and Interviews

Virtual unless otherwise specified.

Interaction-Driven Continual Learning for Instruction Following.

CVPR Workshops	O-DRUM	June 2023	
Carnegie Mellon University	11-777 guest lecture	April 2023	
UT Austin	CS 378 guest lecture	April 2023	
University of Washington	CSE 447 guest lecture	March 2023	Seattle, WA
CoRL Workshops	LangRobo	December 2022	

Two Approaches to Grounded Language Evaluation.

University of Washington	Computational Linguistics Lab	October 2022	
ECCV Workshops	Language for 3D Scenes	October 2022	
NAACL Workshops	Multimodal AI	July 2022	Seattle, WA
NAACL Workshops	SemEval	July 2022	Seattle, WA

Job talk: Reasoning and Learning in Interactive Natural Language Systems.

Allen Institute for AI		May 2022	
UT Austin	CS	May 2022	Austin, TX
HuggingFace		April 2022	New York, NY
Microsoft Research		April 2022	
Carnegie Mellon University	LTI	April 2022	Pittsburgh, PA
University of Waterloo	CS	April 2022	
Georgia Institute of Technology	IC	April 2022	
Boston University	CS	April 2022	
Northwestern University	CS	March 2022	
University of Chicago	Data Science	March 2022	
University of Pennsylvania	CIS	March 2022	Philadelphia, PA
Rutgers University	CS	March 2022	
Yale University	CS	March 2022	
Johns Hopkins University	CS	March 2022	
UC Berkeley	EECS	March 2022	
TTI Chicago		March 2022	Chicago, IL
Simon Fraser University	CS	February 2022	
Stanford	NLP Seminar	February 2022	
UMass Amherst	CICS	February 2022	

Using and Learning Language in Collaborative Interactions.

UC Berkeley	BAIR Trust, Equity, and Grounded Language Workshop	September 2022	
Mila	Language Grounding Reading Group	August 2022	
Navy Research Laboratory	Reasoning Lab Lunch Talks	Jan 2022	
<i>Language and Learning in Collaborative Interactions.</i>			
Cornell University	CS Colloquium	Dec 2021	Ithaca, NY
<i>Learning and Using Natural Language in Interaction.</i>			
NLP with Friends		Nov 2021	
<i>Grounded Natural Language Understanding in Interaction.</i>			
Deepmind		May 2021	
<i>Grounded Language: Visual Reasoning and Collaborative Instruction Following.</i>			
University of Pittsburgh	CS 3730 guest lecture	Oct 2020	
<i>Learning to Understand Natural Language in Collaborative Interactions.</i>			
Cornell University	CIS @ 20 (poster)	Oct 2019	Ithaca, NY
<i>Modeling and Learning Agents that Understand Language in Context.</i>			
UMass Amherst	Machine Learning and Friends Lunch	Feb 2019	Amherst, MA
University of Pennsylvania	Computational Linguistics and Lunch	Nov 2018	Philadelphia, PA
<i>Natural Language for Visual Reasoning for Real: NLVR2.</i>			
Facebook AI Research	ParlAI	Oct 2018	New York, NY
<i>Episode 38: A Corpus of Natural Language for Visual Reasoning.</i>			
AI2	NLP Highlights Podcast	Oct 2017	

Tutorials

Crowdsourcing beyond annotation: case studies in benchmark data collection. Presented at *EMNLP*. In 2021 collaboration with Clara Vania, Nikita Nangia, Maarten Sap, Mark Yatskar, Samuel R. Bowman, and Yoav Artzi.

Neural semantic parsing. Presented at *ACL*. In collaboration with Matt Gardner, Pradeep Dasigi, Srinivasan Iyer, and Luke Zettlemoyer. 2018

Teaching Experience

Graduate Teaching Assistant for <i>CS 5740: Natural Language Processing</i> at Cornell Tech.	Spring 2018
Graduate Teaching Assistant for <i>CS 4700: Foundations of Artificial Intelligence</i> at Cornell University.	Fall 2016
Grader for <i>CSE 5525: Speech and Language Processing</i> at Ohio State University.	Spring 2016
Co-organizer and Instructor of the STEM and Robotics Club at Columbus North International School, supported via Eminence Fellowship and P12 Initiative at Ohio State.	2014–2016
Tutor in pre-calculus at Linden-McKinley STEM Academy, via the Eminence Fellowship's <i>Forward First</i> initiative.	Spring 2013
Co-instructor of the iOS Development Group for Media, Marketing, and Communications Scholars at Ohio State.	2012–2014

Mentoring Experience

PhD Students

Wenting Zhao, Cornell (intern at AI2, co-hosted with Xiang Lorraine Li) 2023

Undergraduate Students

Anyu Ji, Cornell 2021–2022
Anna Effenberger, Cornell → Goldman Sachs 2020
Rhia Singh, CUNY → Veeva Systems 2020
Eva Yan, CUNY 2020
Charlotte Schluger, Cornell → Children's Hospital of Philadelphia, Data Science and Biostatistics 2018–2019
Stanley Yu, Columbia → Google 2018
Hadi Khader, Technion → Intel 2018
Marwa Mouallem, Technion → IBM 2018
Stephanie Zhou, Cornell → UMD PhD program 2017–2018

Masters Students

Iris Zhang, Cornell Tech → Facebook 2018–2019
Yong Huang, Cornell Tech → UC Irvine PhD program 2019
HuaJun Bai, Cornell Tech → blockdynamics 2018

Professional Activity

Workshop Organization

InterNLP: Interactive Learning for Natural Language Processing, at *NeurIPS*; with Kianté Brantley, Soham Dan, Ji-Ung Lee, Khanh Nguyen, Edwin Simpson, and Yoav Artzi 2022

ViGIL: Visually Grounded Interaction and Language, at *NAACL*; with Cătălina Cangea, Abhishek Das, Drew Hudson, Jacob Krantz, Stefan Lee, Jiayuan Mao, Florian Strub, Erik Wijmans; Scientific Committee: Mateusz Malinowski, Aaron Courville, Olivier Pietquin, Harm de Vries 2021

IntEx-SemPar: Interactive Executable Semantic Parsing, at *EMNLP*; with Ben Bogin, Srinivasan Iyer, Victoria Lin, Panupong (Ice) Pasupat, Pengcheng Yin, Tao Yu, Rui Zhang, Victor Zhong; Steering Committee: Jonathan Berant, Graham Neubig, Yunyao Li, Caiming Xiong, Dragomir Radev, Luke Zettlemoyer 2020

ViGIL: Visually Grounded Interaction and Language, at *NeurIPS*; with Florian Strub, Harm de Vries, Erik Wijmans, Drew Hudson, Abhishek Das, Stefan Lee; Scientific Committee: Mateusz Malinowski, Chris Manning, Aaron Courville, Olivier Pietquin 2019

Senior Program Committee

Area Chair for ACL: Language Grounding to Vision, Robotics, and Beyond track 2023
Area Chair for EMNLP: Speech, Vision, Robotics, Multimodal Grounding track 2022
Area Chair for NAACL-HLT: Resources and Evaluation track 2021

Program Committee (Reviewing) for Conference or Journal **Outstanding reviewer*

EACL, ICML 2023
NeurIPS*, ICLR, CoNLL, AKBC, AACL-IJCNLP, TMLR, PAMI, EACL 2022
EMNLP, ACL*, NeurIPS, ICLR*, ICML, IJCAI 2021
EMNLP, ACL, NeurIPS*, CoNLL 2020
EMNLP, ACL, NeurIPS, CoNLL, NAACL-HLT 2019
EMNLP, ACL, COLING 2018
EMNLP, AAAI 2017

Workshop Reviewing

EACL SRW	2023
RoboNLP-SpLU, NLP4Prog, ALVR	2021
ACL SRW, LANTERN	2020
NAACL-HLT SRW, RoboNLP, SiVL, MRQA	2019
NAACL-HLT SRW, GenDeep	2018

Department Service

Co-President of PhD Students at Cornell Tech (PACT)	2019
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