Yonatan Bisk

Assistant Professor of Computer Science

 $GHC~6703 \\ \boxtimes ybisk@cs.cmu.edu \\ he/him$

MechE 2023

he/him

he/him

2024

2023

	Positions				
2020 –	Assistant Professor Language Technologies Robotics Institute (cour				
2022 -	Visiting Professor M	leta Fundamental Al Research (FA	IR)	w/ Dhr	uv Batra
2021 -	Consulting Professor	r Microsoft Research			
2019 –	Visiting Researcher	Microsoft Research	1	w/ Jiant	eng Gao
2017 –	Postdoctoral Scholar University of Washingto	r on & Allen Institute for Artificial Intel	lligence	w/ Y	'ejin Choi
2015 –	Postdoctoral Scholar Information Sciences Ins	r stitute, University of Southern Califor	rnia	w/ Dan	iel Marcu
_	Education				
2015	Thesis: Unsupervised Advisor: Julia Hockenm	cience The University of Illinois a I Grammar Induction with Com aier er, Dan Roth, ChengXiang Zhai		nmars	
2009	-	ence The University of Texas at A of Separating Control and Logic V	When Grounding Language	using	
	PhD Students		TalkingTo	Robo	ts.com
PhD	Hao Zhu	he/him Theory of Mind	(co-G Neubig)	LTI	2019 –
PhD	Jared Fernandez	he/him Efficiency	(co-E Strubell)	LTI	2020 –
PhD	Vidhi Jain	she/her Language to Control	,	RI	2021 -
PhD	Tiffany Min	she/her Embodiment	(co-R Salakhutdinov)	MLD	2021 –
PhD	Vingshan Chang	14.64 1.15			
	Yingshan Chang	she/her Multimodal Reasoning		LTI	2022 –
PhD	Abitha Thankaraj	she/her Multimodal Reasoning she/her Language to Control	(co-A Kumar)	LTI RI	2022 – 2024 –
PhD PhD		•	(co-A Kumar)		
	Abitha Thankaraj Jimin Sun Rosa Vitiello	she/her Language to Control she/her Tools she/her Collaboration	(co-A Kumar) (co-C Rose)	RI LTI LTI	2024 - 2024 - 2024 -
PhD	Abitha Thankaraj Jimin Sun	she/her Language to Control she/her Tools	,	RI LTI	2024 – 2024 –
PhD PhD	Abitha Thankaraj Jimin Sun Rosa Vitiello Quanting Xie	she/her Language to Control she/her Tools she/her Collaboration	,	RI LTI LTI	2024 - 2024 - 2024 -
PhD PhD	Abitha Thankaraj Jimin Sun Rosa Vitiello Quanting Xie	she/her Language to Control she/her Tools she/her Collaboration he/him LLMs for Robotics	,	RI LTI LTI	2024 - 2024 - 2024 -
PhD PhD PhD	Abitha Thankaraj Jimin Sun Rosa Vitiello Quanting Xie Alumni, Interns,	she/her Language to Control she/her Tools she/her Collaboration he/him LLMs for Robotics , and Undergraduates	,	RI LTI LTI	2024 - 2024 - 2024 - 2024 -

 $_{
m he/him}$ LLMs for Robotics

Juanyun Mai

Noel D Souza

he/him

he/him

he/him

Assistive Robotics for Eldercare (*co-Z Erickson)

Ameya Morbale

Bohao Zhang

Atharva Pusalkar

Shaolin Kataria

Quanting Xie

Seed emergence

Karthik Natarajan

Praveen Venkatesh

Abhinav Gupta

Shivam Tripathy

Harini Subramanyan

MS

MSAII

MRSD

MLT	Jimin Sun	she/her	Embodied Dialogu	ıe		LTI	2022 - 2023
Ugrad	Xiang Fan	,	Transformer Effici		(co-E Strubell)		2022
Intern	Andy Liu		Theory-of-Mind	,	(co-G Neubig)		2022
Intern	Deogratias Amani	he/him	Grounding		(3)		2022
MRSD	Modular Teleop with		_	cson)			2022
	Jashkumar Diyora		he/him	,	angopadhyay	s	she/her
	Jigar Patel		he/him	Prakhar I		ł	ne/him
	Shivani Sivakumar		she/her				
MCDS	Embodied Navigation						2022
	Adhokshaja Madhwaraj		he/him		n Mahajan		ne/him
	Sai Vishwas Padigi		he/him	Vineeth F	•		ne/him
MCDS	Malaika Vijay Embodied Dialogue a	nd To	she/her	Zneng (J	essica) Zhong	S	the/her 2022
WCD3	Xinyue Chen	iliu io	she/her	Nikhil Gu	ıpta	ł	ne/him
	Benny Jiang		he/him	Shubham	•		ne/him
	Prasoon Varshney		he/him				,
MCDS	Novel Concept Learn	ing					2022
	Bharani Ujjaini Kempai	ah	she/her	Linyi Li		s	he/her
MSAII	Visual Patent Search				_		2022
	Suchong Dong		she/her	Zhiyuan			ne/him
	Mansi Goyal Sreenidhi Sundaram		she/her		endez Simon		she/her
MLT		cho/hor	she/her Multimodal Reaso		n Den Berghe	LTI	ne/him 2020 - 2022
MLT			Embodied Visual	-		LTI	2020 - 2022
				•	(O K)		
MS	Xiaoyu (Erin) Zhang	she/her			(co-O Kroemer)	5th	2021 – 2022
Ugrad	Feiyu (Gavin) Zhu		Video Summarizat		(co-C Paxton)		2021
Intern	Melanie Sclar		Symmetric Theory	/-of-Mind	(co-G Neubig)		2021
Intern	Blessing Bassey		<i>TextVQA</i>				2021
	Journal Publicati	ions					
	Training Vision-Langu	uage T	ransformers from	Captions			2023
1	Liangke Gui, Yingshan Cl	nang, Q	iuyuan Huang, Subh	ojit Som, A	Alexander Hauptman	n, Jianf	eng
	Gao, <u>Yonatan Bisk</u>	, .	D /				
_	Transactions on Machine		=				2020
2	The Return of Lexica			Lexicaliz	ed PCFGs		2020
	Hao Zhu, <u>Yonatan Bisk</u> , <i>Transactions of the Associations</i>		_	inguistics			
3	An HDP Model for In		•	•	Grammars		2013
9	Yonatan Bisk, Julia Hock		-	arcgoriai	oranina s		2010
	Transactions of the Associ	ciation 1	for Computational L	inguistics			
	Conference Publi	icatio	ns				
				l	hla Owastiana		2024
4	VISREAS: Complex \ Syeda Nahida Akter, San						2024
•	Findings of the 62nd Ann					ics	
5	Vid2Robot: End-to-e	nd Vid	eo-conditioned P	olicy Lear	ning with Cross-A	Attenti	ion 2024
	Transformers						
	Vidhi Jain, Maria Attaria		-		-	-	-
	R Sanketi, Pierre Serman Debidatta Dwibedi	et, Stef	an Welker, Christine	Chan, Igor	Gilitschenski, <u>Yonaf</u>	tan Bisk	<u>(,</u>
	Robotics: Science and Sy	stems					
6	SOTOPIA -π: Interaction		earning of Socially	v Intellige	nt I anguage Age	nts	2024
0	Ruiyi Wang, Haofei Yu, V						2024
	Yonatan Bisk, Hao Zhu		2 0, 3			_	
	The 62nd Annual Meetin	g of the	Association for Cor	mputationa	l Linguistics		

7	OpenEQA: Embodied Question Answering in the Era of Foundation Models Arjun Majumdar, Anurag Ajay, Xiaohan Zhang, Pranav Putta, Sriram Yenamandra, Mikael Henaff, Sneha Silwal, Paul Mcvay, Oleksandr Maksymets, Sergio Arnaud, Karmesh Yadav, Qiyang Li, Ben Newman, Mohit Sharma, Vincent Berges, Shiqi Zhang, Pulkit Agrawal, Yonatan Bisk, Dhruv Batra, Mrinal Kalakrishnan, Franziska Meier, Chris Paxton, Sasha Sax, Aravind Rajeswaran Conference on Computer Vision and Pattern Recognition	2024
8	SOTOPIA: Interactive Evaluation for Social Intelligence in Language Agents Xuhui Zhou, Hao Zhu, Leena Mathur, Ruohong Zhang, Haofei Yu, Zhengyang Qi, Louis-Philippe Morency, Yonatan Bisk, Daniel Fried, Graham Neubig, Maarten Sap The Twelfth International Conference on Learning RepresentationsSpotlight	2024
9	MOSAIC: Learning Unified Multi-Sensory Object Property Representations for Robot Perception Gyan Tatiya, Jonathan Francis, Ho-Hsiang Wu, Yonatan Bisk, Jivko Sinapov IEEE International Conference on Robotics and Automation	2024
10	WebArena: A Realistic Web Environment for Building Autonomous Agents Shuyan Zhou, Frank F. Xu, Hao Zhu, Xuhui Zhou, Robert Lo, Abishek Sridhar, Xianyi Cheng, Tianyue Ou, Yonatan Bisk, Daniel Fried, Uri Alon, Graham Neubig The Twelfth International Conference on Learning Representations	2024
11	Spatial-Language Attention Policies for Efficient Robot Learning Priyam Parashar, Vidhi Jain, Xiaohan Zhang, Jay Vakil, Sam Powers, Yonatan Bisk, Chris Paxton	2023
12	Conference on Robot Learning SPAE: Semantic Pyramid AutoEncoder for Multimodal Generation with Frozen LLMs Lijun Yu, Yong Cheng, Zhiruo Wang, Vivek Kumar, Wolfgang Macherey, Yanping Huang, David	2023
	A. Ross, Irfan Essa, <u>Yonatan Bisk</u> , Ming-Hsuan Yang, Kevin Murphy, Alexander Hauptmann, Lu Jiang Thirty-seventh Conference on Neural Information Processing Systems	
13	HomeRobot: Open-Vocabulary Mobile Manipulation Sriram Yenamandra, Arun Ramachandran, Karmesh Yadav, Austin Wang, Mukul Khanna, Theophile Gervet, Tsung-Yen Yang, Vidhi Jain, Alexander William Clegg, John Turner, Zsolt Kira, Manolis Savva, Angel Chang, Devendra Singh Chaplot, Dhruv Batra, Roozbeh Mottaghi, Yonatan Bisk, Chris Paxton Conference on Robot Learning	2023
14	SPRING: GPT-4 Out-performs RL Algorithms by Studying Papers and Reasoning	2023
	Yue Wu, Shrimai Prabhumoye, So Yeon Min, <u>Yonatan Bisk</u> , Ruslan Salakhutdinov, Amos Azaria, Tom Mitchell, Yuanzhi Li Thirty-seventh Conference on Neural Information Processing Systems	
15	HomeRobot Open Vocab Mobile Manipulation Challenge Sriram Yenamandra, Arun Ramachandran, Mukul Khanna, Karmesh Yadav, Devendra Singh Chaplot, Gunjan Chhablani, Alexander Clegg, Theophile Gervet, Vidhi Jain, Ruslan Partsey, Ram Ramrakhya, Andrew Szot, Tsung-Yen Yang, Aaron Edsinger, Charlie Kemp, Binit Shah, Zsolt Kira, Dhruv Batra, Roozbeh Mottaghi, Yonatan Bisk, Chris Paxton Thirty-seventh Conference on Neural Information Processing Systems: Competition Track	2023
16	EXCALIBUR: Encouraging and Evaluating Embodied Exploration Hao Zhu, Raghav Kapoor, So Yeon Min, Winson Han, Jiatai Li, Kaiwen Geng, Graham Neubig, Yonatan Bisk, Aniruddha Kembhavi, Luca Weihs Conference on Computer Vision and Pattern Recognition	2023
17	The Framework Tax: Disparities Between Inference Efficiency in Research and Deployment Jared Fernandez, Jacob Kahn, Clara Na, Yonatan Bisk, Emma Strubell The 2023 Conference on Empirical Methods in Natural Language Processing Oral	2023
18	Computational Language Acquisition with Theory of Mind Andy Liu, Hao Zhu, Emmy Liu, Yonatan Bisk, Graham Neubig The Eleventh International Conference on Learning Representations	2023

19	Self-Supervised Object Goal Navigation with In-Situ Finetuning So Yeon Min, Yao-Hung Hubert Tsai, Wei Ding, Ali Farhadi, Ruslan Salakhutdinov, Yonatan Bisk, Jian Zhang IEEE/RSJ International Conference on Intelligent Robots and Systems	2023
20	Don't Copy the Teacher: Data and Model Challenges in Embodied Dialogue So Yeon Min, Hao Zhu, Ruslan Salakhutdinov, <u>Yonatan Bisk</u> Conference on Empirical Methods in Natural Language Processing	2022
21	EvEntS ReaLM: Event Reasoning of Entity States via Language Models Evangelia Spiliopoulou, Artidoro Pagnoni, <u>Yonatan Bisk</u> , Eduard Hovy Conference on Empirical Methods in Natural Language Processing	2022
22	On Advances in Text Generation from Images Beyond Captioning: A Case Study in Self-Rationalization Shruti Palaskar, Akshita Bhagia, Yonatan Bisk, Florian Metze, Alan W Black, Ana Marasovic Findings of the Conference on Empirical Methods in Natural Language Processing	2022
23	Transformers are Adaptable Task Planners Vidhi Jain, Yixin Lin, Eric Undersander, Yonatan Bisk, Akshara Rai Conference on Robot Learning	2022
24	Symmetric Machine Theory of Mind Melanie Sclar, Graham Neubig, Yonatan Bisk 39th International Conference on Machine Learning	2022
25	A Framework for Learning to Request Rich and Contextually Useful Information from Humans Khanh Nguyen, Yonatan Bisk, Hal Daume III 39th International Conference on Machine Learning,	2022
26	Simulated Language Learning from Communicative Goals and Linguistic Input Hao Zhu, Yonatan Bisk, Graham Neubig Annual Meeting of the Cognitive Science SocietyOral	2022
27	HEAR 2021: Holistic Evaluation of Audio Representations Joseph Turian, Jordie Shier, Humair Raj Khan, Bhiksha Raj, Björn W. Schuller, Christian J. Steinmetz, Colin Malloy, George Tzanetakis, Gissel Velarde, Kirk McNally, Max Henry, Nicolas Pinto, Camille Noufi, Christian Clough, Dorien Herremans, Eduardo Fonseca, Jesse Engel, Justin Salamon, Philippe Esling, Pranay Manocha, Shinji Watanabe, Zeyu Jin, Yonatan Bisk Proceedings of Machine Learning Research (PMLR): NeurIPS 2021 Competition Track	2022
28	KAT: A Knowledge Augmented Transformer for Vision-and-Language Liangke Gui, Borui Wang, Qiuyuan Huang, Alexander Hauptmann, Yonatan Bisk, Jianfeng Gao Annual Conference of the North American Chapter of the Association for Computational	2022
29	LinguisticsOral FILM: Following Instructions in Language with Modular Methods So Yeon Min, Devendra Singh Chaplot, Pradeep Ravikumar, Yonatan Bisk, Ruslan Salakhutdinov The Tenth International Conference on Learning Representations	2022
30	WebQA: Multihop and Multimodal QA Yingshan Chang, Mridu Narang, Hisami Suzuki, Guihong Cao, Jianfeng Gao, Yonatan Bisk Conference on Computer Vision and Pattern RecognitionOral	2022
31	Dependency Induction Through the Lens of Visual Perception Ruisi Su, Shruti Rijhwani, Hao Zhu, Junxian He, Xinyu Wang, Yonatan Bisk, Graham Neubig The SIGNLL Conference on Computational Natural Language Learning	2021
32	Language Grounding with 3D Objects Jesse Thomason, Mohit Shridhar, Yonatan Bisk, Chris Paxton, Luke Zettlemoyer Conference on Robot Learning	2021
33	TACo: Token-aware Cascade Contrastive Learning for Video-Text Alignment Jianwei Yang, Yonatan Bisk, Jianfeng Gao International Conference on Computer Vision	2021
34	Few-shot Language Coordination by Modeling Theory of Mind Hao Zhu, Graham Neubig, Yonatan Bisk The Thirty-eighth International Conference on Machine Learning	2021

35	Grounding 'Grounding' in NLP Khyathi Raghavi Chandu, Yonatan Bisk, Alan W Black Findings of The 2021 Conference of the Association for Computational Linguistics	2021
36	An Empirical Study on the Generalization Power of Neural Representations Learned via Visual Guessing Games Alessandro Suglia, Yonatan Bisk, Ioannis Konstas, Antonio Vergari, Emanuele Bastianelli, Andrea Vanzo, Oliver Lemon The 2021 Conference of the European Chapter of the Association for Computational LinguisticsOral	2021
37	Knowledge-driven Data Construction for Zero-shot Evaluation in Commonsense Question Answering Kaixin Ma, Filip Ilievski, Jonathan Francis, Yonatan Bisk, Eric Nyberg, Alessandro Oltramari 35th AAAI Conference on Artificial Intelligence	2021
38	ALFWorld: Aligning Text and Embodied Environments for Interactive Learning Mohit Shridhar, Xingdi Yuan, Marc-Alexandre Côté, Yonatan Bisk, Adam Trischler, Matthew Hausknecht International Conference on Learning Representations	2021
39	Imagining Grounded Conceptual Representations from Perceptual Information in Situated Guessing Games Alessandro Suglia, Antonio Vergari, Ioannis Konstas, Yonatan Bisk, Emanuele Bastianelli, Andrea Vanzo, Oliver Lemon The 28th International Conference on Computational LinguisticsOral	2020
40	Experience Grounds Language Yonatan Bisk, Ari Holtzman, Jesse Thomason, Jacob Andreas, Yoshua Bengio, Joyce Chai, Mirella Lapata, Angeliki Lazaridou, Jonathan May, Aleksandr Nisnevich, Nicolas Pinto, Joseph Turian Conference on Empirical Methods in Natural Language ProcessingOral	2020
41	RMM: A Recursive Mental Model for Dialog Navigation Homero Roman Roman, Yonatan Bisk, Jesse Thomason, Asli Celikyilmaz, Jianfeng Gao Conference on Empirical Methods in Natural Language Processing: Findings	2020
42	ALFRED: A Benchmark for Interpreting Grounded Instructions for Everyday Tasks Mohit Shridhar, Jesse Thomason, Daniel Gordon, Yonatan Bisk, Winson Han, Roozbeh Mottaghi, Luke Zettlemoyer, Dieter Fox The IEEE Conference on Computer Vision and Pattern Recognition (CVPR)	2020
43	PIQA: Reasoning about Physical Commonsense in Natural Language Yonatan Bisk, Rowan Zellers, Ronan Le Bras, Jianfeng Gao, Yejin Choi Thirty-Fourth AAAI Conference on Artificial IntelligenceOral	2020
44	Robust Navigation with Language Pretraining and Stochastic Sampling Xiujun Li, Chunyuan Li, Qiaolin Xia, Yonatan Bisk, Asli Celikyilmaz, Jianfeng Gao, Noah A. Smith, Yejin Choi Conference on Empirical Methods in Natural Language Processing and 9th International	2019
45	Joint Conference on Natural Language Processing Defending Against Neural Fake News Rowan Zellers, Ari Holtzman, Hannah Rashkin, Yonatan Bisk, Ali Farhadi, Franziska Roesner, Yejin Choi Thirty-third Conference on Neural Information Processing Systems	2019
46	Improving Robot Success Detection using Static Object Data Rosario Scalise, Jesse Thomason, Yonatan Bisk, Siddhartha Srinivasa IEEE/RSJ International Conference on Intelligent Robots and Systems	2019
47	Early Fusion for Goal Directed Robotic Vision Aaron Walsman, Yonatan Bisk, Saadia Gabriel, Dipendra Misra, Yoav Artzi, Yejin Choi, Dieter Fox 2019 IEEE/RSJ International Conference on Intelligent Robots and Systems	2019
48	 RoboCup Best Paper Award finalist HellaSwag: Can a Machine Really Finish Your Sentence? Rowan Zellers, Ari Holtzman, Yonatan Bisk, Ali Farhadi, Yejin Choi Association for Computational Linguistics 	2019

49	From Recognition to Cognition: Visual Commonsense Reasoning Rowan Zellers, Yonatan Bisk, Ali Farhadi, Yejin Choi The IEEE Conference on Computer Vision and Pattern RecognitionOral	2019
50	Tactical Rewind: Self-Correction via Backtracking in Vision-and-Language Navigation Liyiming Ke, Xiujun Li, Yonatan Bisk, Ari Holtzman, Zhe Gan, Jingjing Liu, Jianfeng Gao, Yejin Choi, Siddhartha Srinivasa The IEEE Conference on Computer Vision and Pattern RecognitionOral	2019
51	Prospection: Interpretable Plans From Language By Predicting the Future Chris Paxton, Yonatan Bisk, Jesse Thomason, Arunkumar Byravan, Dieter Fox International Conference on Robotics and Automation (ICRA)	2019
52	Shifting the Baseline: Single Modality Performance on Visual Navigation & QA Jesse Thomason, Daniel Gordon, Yonatan Bisk Annual Conference of the North American Chapter of the Association for Computational Linguistics	2019
53	Benchmarking Hierarchical Script Knowledge Yonatan Bisk, Jan Buys, Karl Pichotta, Yejin Choi Annual Conference of the North American Chapter of the Association for Computational LinguisticsOral	2019
54	Character-based Surprisal as a Model of Reading Difficulty in the Presence of Errors Michael Hahn, Frank Keller, Yonatan Bisk, Yonatan Belinkov The 41st Annual Meeting of the Cognitive Science SocietyOral	2019
55	SWAG: A Large-Scale Adversarial Dataset for Grounded Commonsense Inference Rowan Zellers, Yonatan Bisk, Roy Schwartz, Yejin Choi Conference on Empirical Methods in Natural Language ProcessingOral	2018
56	Synthetic and Natural Noise Both Break Neural Machine Translation Yonatan Belinkov, Yonatan Bisk 6th International Conference on Learning RepresentationsOral	2018
57	Learning Interpretable Spatial Operations in a Rich 3D Blocks World Yonatan Bisk, Kevin Shih, Yejin Choi, Daniel Marcu Thirty-Second Conference on Artificial Intelligence (AAAI-18)	2018
58	Natural Language Inference from Multiple Premises Alice Lai, Yonatan Bisk, Julia Hockenmaier Eighth International Joint Conference on Natural Language ProcessingOral	2017
59	Natural Language Communication with Robots Yonatan Bisk, Deniz Yuret, Daniel Marcu 15th Annual Conference of the North American Chapter of the Association for Computational LinguisticsOral	2016
60	Supertagging with LSTMs Ashish Vaswani, Yonatan Bisk, Kenji Sagae, Ryan Musa 15th Annual Conference of the North American Chapter of the Association for Computational Linguistics (Short Papers)Oral	2016
61	<u>Yonatan Bisk</u> , Siva Reddy, John Blitzer, Julia Hockenmaier, Mark Steedman 2016 Conference on Empirical Methods in Natural Language Processing	2016
62	Probing the Linguistic Strengths and Limitations of Unsupervised Grammar Induction Yonatan Bisk, Julia Hockenmaier 53rd Annual Meeting of the Association for Computational Linguistics and the 7th International Joint Conference on Natural Language Processing (Volume 1: Long Papers) Oral	2015
63	Labeled Grammar Induction with Minimal Supervision Yonatan Bisk, Christos Christodoulopoulos, Julia Hockenmaier 53rd Annual Meeting of the Association for Computational Linguistics and the 7th International Joint Conference on Natural Language Processing (Volume 2: Short Papers)	2015
64	Simple Robust Grammar Induction with Combinatory Categorial Grammar Yonatan Bisk, Julia Hockenmaier Twenty-Sixth Conference on Artificial Intelligence (AAAI-12)	2012

65	Document-Topic Hierarchies from Document Graphs Tim Weninger, Yonatan Bisk, Jiawei Han 21st ACM international conference on Information and knowledge management (CIKM 2012)	2012
66	Normal-form parsing for CCGs with generalized composition and type-raising Julia Hockenmaier, Yonatan Bisk 23rd International Conference on Computational Linguistics (Coling 2010)	2010
	Workshop Publications	
67	MAEA: Multimodal Attribution for Embodied Al Vidhi Jain, Jayant Sravan Tamarapalli, Sahiti Yerramilli, <u>Yonatan Bisk</u> Progress and Challenges in Building Trustworthy Embodied Al at NeurIPS 2022	2022
68	Tackling AlfWorld with Action Attention and Common Sense from Language Models Yue Wu, So Yeon Min, Yonatan Bisk, Ruslan Salakhutdinov, Shrimai Prabhumoye Language and Reinforcement Learning Workshop at NeurIPS 2022	2022
69	Worst of Both Worlds: Biases Compound in Pre-trained Vision-and-Language Models Tejas Srinivasan, Yonatan Bisk 4th Workshop on Gender Bias in Natural Language Processing	2022
70	KB-VLP: Knowledge Based Vision and Language Pretraining Kezhen Chen, Qiuyuan Huang, Yonatan Bisk, Daniel McDuff, Jianfeng Gao ICML21 Workshop on Self-Supervised Learning	2021
71	A Benchmark for Structured Procedural Knowledge Extraction from Cooking Videos Frank F. Xu, Lei Ji, Botian Shi, Junyi Du, Graham Neubig, Yonatan Bisk, Nan Duan Workshop on NLP Beyond Text	2020
72	Inducing Grammars with and for Neural Machine Translation Ke Tran, Yonatan Bisk 2nd Workshop on Neural Machine TranslationBest Paper	2018
73	Bridging HMMs and RNNs through Architectural Transformations Jan Buys, Yonatan Bisk, Yejin Choi 32nd Conference on Neural Information Processing Systems (NIPS 2018), IRASL workshop	2018
74	Towards a Dataset for Human Computer Communication via Grounded Language Acquisition Yonatan Bisk, Daniel Marcu, William Wong AAAI 2016 Workshop on Symbiotic Cognitive Systems	2016
75	Unsupervised Neural Hidden Markov Models Ke Tran, Yonatan Bisk, Ashish Vaswani, Daniel Marcu, Kevin Knight Workshop on Structured Prediction for NLPOral	2016
76	Induction of Linguistic Structure with Combinatory Categorial Grammars Yonatan Bisk, Julia Hockenmaier NAACL HLT Workshop on Induction of Linguistic Structure	2012
	Preprint Publications	
77	Language Models Need Inductive Biases to Count Inductively Yingshan Chang, Yonatan Bisk ArXiv	2024
78	Dialogue with Robots: Proposals for Broadening Participation and Research in the SLIVAR Community Casey Kennington, Malihe Alikhani, Heather Pon-Barry, Katherine Atwell, Yonatan Bisk, Daniel Fried, Felix Gervits, Zhao Han, Mert Inan, Michael Johnston, Raj Korpan, Diane Litman, Matthew Marge, Cynthia Matuszek, Ross Mead, Shiwali Mohan, Raymond Mooney, Natalie Parde, Jivko Sinapov, Angela Stewart, Matthew Stone, Stefanie Tellex, Tom Williams ArXiv	2024
79	AgentKit: Flow Engineering with Graphs, not Coding Yue Wu, Yewen Fan, So Yeon Min, Shrimai Prabhumoye, Stephen McAleer, <u>Yonatan Bisk</u> , Ruslan Salakhutdinov, Yuanzhi Li, Tom Mitchell <i>ArXiv</i>	2024

80	Skews in the Phenomenon Space Hinder Generalization in Text-to-Image Generation Yingshan Chang, Yasi Zhang, Zhiyuan Fang, Yingnian Wu, Yonatan Bisk, Feng Gao ArXiv	2024
81	Direct Preference Optimization of Video Large Multimodal Models from Language Model Reward Ruohong Zhang, Liangke Gui, Zhiqing Sun, Yihao Feng, Keyang Xu, Yuanhan Zhang, Di Fu, Chunyuan Li, Alexander Hauptmann, Yonatan Bisk, Yiming Yang ArXiv	2024
82	Toward General-Purpose Robots via Foundation Models: A Survey and Meta-Analysis Yafei Hu, Quanting Xie, Vidhi Jain, Jonathan Francis, Jay Patrikar, Nikhil Keetha, Seungchan Kim, Yaqi Xie, Tianyi Zhang, Shibo Zhao, Yu Quan Chong, Chen Wang, Katia Sycara, Matthew Johnson-Roberson, Dhruv Batra, Xiaolong Wang, Sebastian Scherer, Zsolt Kira, Fei Xia, Yonatan Bisk ArXiv	2023

83 Open X-Embodiment: Robotic Learning Datasets and RT-X Models

Open X-Embodiment Collaboration, Abby O'Neill, Abdul Rehman, Abhiram Maddukuri, Abhishek Gupta, Abhishek Padalkar, Abraham Lee, Acorn Pooley, Agrim Gupta, Ajay Mandlekar, Ajinkya Jain, Albert Tung, Alex Bewley, Alex Herzog, Alex Irpan, Alexander Khazatsky, Anant Rai, Anchit Gupta, Andrew Wang, Anikait Singh, Animesh Garg, Aniruddha Kembhavi, Annie Xie, Anthony Brohan, Antonin Raffin, Archit Sharma, Arefeh Yavary, Arhan Jain, Ashwin Balakrishna, Ayzaan Wahid, Ben Burgess-Limerick, Beomjoon Kim, Bernhard Schölkopf, Blake Wulfe, Brian Ichter, Cewu Lu, Charles Xu, Charlotte Le, Chelsea Finn, Chen Wang, Chenfeng Xu, Cheng Chi, Chenguang Huang, Christine Chan, Christopher Agia, Chuer Pan, Chuyuan Fu, Coline Devin, Danfei Xu, Daniel Morton, Danny Driess, Daphne Chen, Deepak Pathak, Dhruv Shah, Dieter Büchler, Dinesh Jayaraman, Dmitry Kalashnikov, Dorsa Sadigh, Edward Johns, Ethan Foster, Fangchen Liu, Federico Ceola, Fei Xia, Feiyu Zhao, Freek Stulp, Gaoyue Zhou, Gaurav S. Sukhatme, Gautam Salhotra, Ge Yan, Gilbert Feng, Giulio Schiavi, Glen Berseth, Gregory Kahn, Guanzhi Wang, Hao Su, Hao-Shu Fang, Haochen Shi, Henghui Bao, Heni Ben Amor, Henrik I Christensen, Hiroki Furuta, Homer Walke, Hongjie Fang, Huy Ha, Igor Mordatch, Ilija Radosavovic, Isabel Leal, Jacky Liang, Jad Abou-Chakra, Jaehyung Kim, Jaimyn Drake, Jan Peters, Jan Schneider, Jasmine Hsu, Jeannette Bohg, Jeffrey Bingham, Jeffrey Wu, Jensen Gao, Jiaheng Hu, Jiajun Wu, Jialin Wu, Jiankai Sun, Jianlan Luo, Jiayuan Gu, Jie Tan, Jihoon Oh, Jimmy Wu, Jingpei Lu, Jingyun Yang, Jitendra Malik, João Silvério, Joey Hejna, Jonathan Booher, Jonathan Tompson, Jonathan Yang, Jordi Salvador, Joseph J. Lim, Junhyek Han, Kaiyuan Wang, Kanishka Rao, Karl Pertsch, Karol Hausman, Keegan Go, Keerthana Gopalakrishnan, Ken Goldberg, Kendra Byrne, Kenneth Oslund, Kento Kawaharazuka, Kevin Black, Kevin Lin, Kevin Zhang, Kiana Ehsani, Kiran Lekkala, Kirsty Ellis, Krishan Rana, Krishnan Srinivasan, Kuan Fang, Kunal Pratap Singh, Kuo-Hao Zeng, Kyle Hatch, Kyle Hsu, Laurent Itti, Lawrence Yunliang Chen, Lerrel Pinto, Li Fei-Fei, Liam Tan, Linxi "Jim" Fan, Lionel Ott, Lisa Lee, Luca Weihs, Magnum Chen, Marion Lepert, Marius Memmel, Masayoshi Tomizuka, Masha Itkina, Mateo Guaman Castro, Max Spero, Maximilian Du, Michael Ahn, Michael C. Yip, Mingtong Zhang, Mingyu Ding, Minho Heo, Mohan Kumar Srirama, Mohit Sharma, Moo Jin Kim, Naoaki Kanazawa, Nicklas Hansen, Nicolas Heess, Nikhil J Joshi, Niko Suenderhauf, Ning Liu, Norman Di Palo, Nur Muhammad Mahi Shafiullah, Oier Mees, Oliver Kroemer, Osbert Bastani, Pannag R Sanketi, Patrick "Tree" Miller, Patrick Yin, Paul Wohlhart, Peng Xu, Peter David Fagan, Peter Mitrano, Pierre Sermanet, Pieter Abbeel, Priya Sundaresan, Qiuyu Chen, Quan Vuong, Rafael Rafailov, Ran Tian, Ria Doshi, Roberto Martín-Martín, Rohan Baijal, Rosario Scalise, Rose Hendrix, Roy Lin, Runjia Qian, Ruohan Zhang, Russell Mendonca, Rutav Shah, Ryan Hoque, Ryan Julian, Samuel Bustamante, Sean Kirmani, Sergey Levine, Shan Lin, Sherry Moore, Shikhar Bahl, Shivin Dass, Shubham Sonawani, Shuran Song, Sichun Xu, Siddhant Haldar, Siddharth Karamcheti, Simeon Adebola, Simon Guist, Soroush Nasiriany, Stefan Schaal, Stefan Welker, Stephen Tian, Subramanian Ramamoorthy, Sudeep Dasari, Suneel Belkhale, Sungjae Park, Suraj Nair, Suvir Mirchandani, Takayuki Osa, Tanmay Gupta, Tatsuya Harada, Tatsuya Matsushima, Ted Xiao, Thomas Kollar, Tianhe Yu, Tianli Ding, Todor Davchev, Tony Z. Zhao, Travis Armstrong, Trevor Darrell, Trinity Chung, Vidhi Jain, Vincent Vanhoucke, Wei Zhan, Wenxuan Zhou, Wolfram Burgard, Xi Chen, Xiaolong Wang, Xinghao Zhu, Xinyang Geng, Xiyuan Liu, Xu Liangwei, Xuanlin Li, Yao Lu, Yecheng Jason Ma, Yejin Kim, Yevgen Chebotar, Yifan Zhou, Yifeng Zhu, Yilin Wu, Ying Xu, Yixuan Wang, Yonatan Bisk, Yoonyoung Cho, Youngwoon Lee, Yuchen Cui, Yue Cao, Yueh-Hua Wu, Yujin Tang, Yuke Zhu, Yunchu Zhang, Yunfan Jiang, Yunshuang Li, Yunzhu Li, Yusuke Iwasawa, Yutaka Matsuo, Zehan Ma, Zhuo Xu, Zichen Jeff Cui, Zichen Zhang, Zipeng Fu, Zipeng Lin

ArXiv

Reasoning about the Unseen for Efficient Outdoor Object Navigation Quanting Xie, Tianyi Zhang, Kedi Xu, Matthew Johnson-Roberson, Yonatan Bisk

2023

2023

Plan, Eliminate, and Track – Language Models are Good Teachers for Embodied Agents

Yue Wu, So Yeon Min, <u>Yonatan Bisk</u>, Ruslan Salakhutdinov, Amos Azaria, Yuanzhi Li, Tom Mitchell, Shrimai Prabhumoye ArXiv

86	Singh Chaplot, Changan Chen, Claudia Anthony Francis, Chuang Gan, Kristen Aniruddha Kembhavi, Jacob Krantz, St Maksymets, Roberto Martín-Martín, Ro Silvio Savarese, Manolis Savva, Mohit S	Al Workshop k, Tommaso Campari, Angel X. Chang, Devendra Pérez D'Arpino, Kiana Ehsani, Ali Farhadi, Li Fei-Fei, Grauman, David Hall, Winson Han, Unnat Jain, efan Lee, Chengshu Li, Sagnik Majumder, Oleksandr ozbeh Mottaghi, Sonia Raychaudhuri, Mike Roberts, hridhar, Niko Sünderhauf, Andrew Szot, Ben Talbot, h, Alexander Toshev, Joanne Truong, Luca Weihs, Jiajun	2022
87	Multi-View Learning for Vision-an	nd-Language Navigation natan Bisk, Zhifang Sui, Jianfeng Gao, Yejin Choi, Noah	2020
88	FIND: Identifying Functionally an Sequences with Deep Neural Net Ranjani Murali, James Hemp, Victoria ChioRxiv		2019
89	Balancing Shared Autonomy with Rosario Scalise, Yonatan Bisk, Maxwell ArXiv	Human-Robot Communication Forbes, Daqing Yi, Yejin Choi, Siddhartha Srinivasa	2018
90	CHALET: Cornell House Agent L Claudia Yan, Dipendra Misra, Andrew E ArXiv Preprint 1801.07357	earning Environment Bennett, Aaron Walsman, <u>Yonatan Bisk</u> , Yoav Artzi	2018
	Thesis Committees		
_	PhD Gabe Sarch	Katerina Fragkiadaki and Mike Tarr	, CMU
_	PhD Seungchan Kim	Sebastian Scherer	, CMU
_	PhD Brendon Boldt	David Mortensen	ı, CMU
-	PhD Xiaoyu Zhu	Alex Hauptmann	ı, CMU
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2021	MLT Jing Wen Ougl Mobit Sharma	Katerina Fragkiadaki	
2021	Qual Mohit Sharma	Oliver Kroemer	, CIVIU
	Teaching		
2024	11-777 MultiModal Machine Lear	ning Co-Daniel Fried # Students: 1	.35, SP

2023 11-851 Talking to Robots

Students: 16, FA

	11-767 On-Device Machine Learning	Co-Emma Strubell # Students: 69,	FA
	11-777 MultiModal Machine Learning	Co-Daniel Fried # Students: 107,	SP
2022	11-767 On-Device Machine Learning	Co-Emma Strubell # Students: 42,	FA
	11-777 MultiModal Machine Learning	# Students: 94,	SP
2021	11-767 On-Device Machine Learning	Co-Emma Strubell # Students: 31,	FA
	11-777 MultiModal Machine Learning	# Students: 42,	SP
	Diversity and Inclusion		
2022	NAACL 2022 DEI Co-Chair		
2021	Restructuring of LTI PhD Admissions,		2yr
2020	LTI DEI Committee,	2	2yrs
2019	CrashCourse AI Educational YouTube series targeted at h	igh-school age viewers. Hosted by Ja	bril
	Ashe. Co-Written with Lana Yarosh and Tim Weninger,		1yr
2018	ACM Council on Diversity & Inclusion Investigating and ACM on behalf of underrepresented groups.,		ı 1yr
_	Grace Hopper PC member Review submissions to Al Tec	chnical Track,	1yr
2016	NCWIT Collegiate Award Review applications for the Na Technology's Collegiate Award honoring college women, ISI		ion <i>Byrs</i>
2009	NCWIT Aspirations in Computing Review applications f	or the National Center for Women &	
	Information Technology's Award for Aspirations in Comput		
	interested in CS, UIUC, ISI		gyrs
_	Tech Junket/Women in CS Outreach for local Urbana-C <i>2yrs</i>	hampaign pre-college students, UIUC	•
2008	Freshman Research Mentor Mentored students to perfor		1yr
_	First Bytes Helped organize a summer camp for girls inter		
_	Co-Founded Breakfast Bytes Professor talks for pre-colle	-	1yr
_	CS Roadshow CS presentations at Austin middle and high	schools, UTexas	1yr
	(Senior) Area Chair / Action Editor		
2024	Conference on Robot Learning (CoRL)	Ro	obo
_	Conference on Computer Vision and Pattern Recognit	ion (CVPR)	CV
_	International Conference on Learning Representations	(ICLR) AI/	ML
_	European Chapter of the Association for Computation	nal Linguistics (EACL)	ILP
_	Senior AE: ACL Rolling Review (ARR)	Λ	ILP
_	AE: Transactions on Machine Learning Research (TM	LR) AI/	ML
2023	Neural Information Processing Systems (NeurIPS)	AI/	ML
_	International Conference on Machine Learning (ICML) AI/	ML
_	AE: Transactions on Machine Learning Research (TM	LR) AI/	ML
_	Senior AE: ACL Rolling Review (ARR)	٨	ILP
_	Ethics Co-Chair: Association for Computational Lingu	` '	ILP
_	Empirical Methods in Natural Language Proc (EMNL	,	ILP
2022	International Conference on Learning Representations	,	
_	Senior MR: Association for the Advancement of Artifi	- '	
_	Senior AC: Empirical Methods in Natural Language P	,	ILP
_	AE: Transactions on Machine Learning Research (TM	,	
_	Senior AE: ACL Rolling Review (ARR)		ILP
_	Neural Information Processing Systems (NeurIPS)	AI/	
2021	International Conference on Learning Representations	•	
_	Association for Computational Linguistics (ACL)	Λ	VLP

_	Empirica	Methods in Natural Language Proc (EMNLP)	NLP		
_	Neural Information Processing Systems (NeurIPS)				
_	ACL Rolling Review (ARR)				
2020	Association for Computational Linguistics (ACL)				
_	Neural Information Processing Systems (NeurIPS)				
_	Asia-Pac	ific chapter of the Association for Computational Linguistics (AAC	CL) NLP		
2019	Associati	ion for Computational Linguistics (ACL)	NLP		
2018	Internati	onal Conference on Computational Linguistics	NLP		
2016	Conferen	ce on Lexical and Computational Semantics (*SEM)	NLP		
	Review	rer			
NLP	ARR	Association for Computational Linguistics Rolling Review	2021		
	ACL	Association for Computational Linguistics	2017, 2018		
	CL	Computational Linguistics Journal	2017 – 2022		
	CoLing	International Conference on Computational Linguistics	2016		
	CoNLL	Conference on Computational Natural Language Learning	2016 – 2018		
	EACL	European Chapter of the Association for Computational Linguistics	2014, 17, 20		
	EMNLP	Empirical Methods in Natural Language Processing	2013 – 2020		
	IJCNLP	International Joint Conference on Natural Language Processing	2017		
	NAACL	N. American Chapter of the Association for Computational Ling	2016 – 2019		
	NLE	Natural Language Engineering Journal	2016		
	*SEM	Joint Conference on Lexical and Computational Semantics	2020		
	TACL	Transactions of the Assoc. for Computational Linguistics	2019 - 2023		
Robo	CoRL	Conference on Robot Learning	2019 – 2021,2023		
	AURO	Autonomous Robots	2022		
	RSS	Robotics: Science and Systems	2022, 2024		
	HRI	Human Robot Interaction	2020 - 2024		
	ICRA	International Conference on Robotics and Automation	2019,2023, 2024		
	IJRR	International Journal of Robotics Research	2017		
	IROS	IEEE/RSJ International Conference on Intelligent Robots and Syste	ems <i>2019,23–24</i>		
	RA-L	IEEE Robotics and Automation Letters	2019,2023		
AI/ML	AAAI	Association for the Advancement of Artificial Intelligence	2018, 2021		
	ICLR	International Conference on Learning Representations	2019 – 2020		
	ICML	International Conference on Machine Learning	2019		
	IJCAI	International Joint Conference on Artificial Intelligence	2019		
	NeurIPS	Neural Information Processing Systems	2018 – 2019		
CV	CVPR	Computer Vision and Pattern Recognition	2020, 2023		
	Organi	zation (Workshops and Conference)			
2022	- ,				
		Vision and Pattern Recognition			
2021		p Embodied AI Workshop – Challenge Organizer Vision and Pattern Recognition			
2020	-	p Embodied Vision, Actions & Language Workshop			
2020		Conference on Computer Vision			

Workshop *Workshop on Dataset Curation and Security* NeurIPS

- 2019 **Workshop** Spatial Language Understanding and Grounded communication for Robotics North American Chapter of the Association for Computational Linguistics
- 2018 Conference Social Media Chair

North American Chapter of the Association for Computational Linguistics

- Workshop Generalization in the Age of Deep Learning
 North American Chapter of the Association for Computational Linguistics
- Workshop Wordplay: Reinformcent and Language Learning in Text-Based Games NeurIPS
- 2017 **Conference** Student Scholarship Chair and Student Volunteer Coordinator Conference on Empirical Methods in Natural Language Processing
 - Workshop Language Grounding for Robotics
 Conference of the Association for Computational Linguistics

Invitations and Talks

2024 Talking to Robots University Pennsylvania

University of Maryland, College Park

2023 Are We Really Talking to Robots? "Dialogue with Robots" workshop, UPitt NSF Workshop Words # language Articulate Robots: Utilizing Language for Robot Learning RSS Workshop Following Instructions and Asking Questions Learning by Asking for Intelligent Robots and Agents RO-MAN Workshop

Following Instructions and Asking Questions Goal Conditioned RL Workshop @ NeurIPS

Can we really connect language to robotics? CoRL Wksp on Language and Robot Learning
How machines learn language: Useful but wrong? 12th Inter. Wksp on Language Production
Following Instructions and Asking Questions Univ of Potsdam

Univ California Santa Barbara NLP

Georgia Tech NLP

Microsoft Research NYC

Penn State University

Universitat Hamburg Crossmodal Learning (CML) summer school

University of Stuttgart Institute of Natural Language Processing

University of Pittsburgh NLP

2021 Univ of Illinois at Urbana-Champaign NLP

Human Interaction for Robotic Navigation Workshop @ Inter. Conference on Computer Vision

WebQA: Multihop and Multimodal QA PNNL Mega-Al Seminar

WebQA: Multihop and Multimodal Microsoft Research Summit

2nd Workshop on Advances in Language and Vision Research (ALVR) NAACL

Instructions, Abstraction, and Theory-of-Mind Koç University Al center

Understanding the Potential of Scaling Artificial Intelligence for Science Applications Panel Pacific Northwest National Lab

Guest Lecture: Embodiment for NLP Univ of Pennsylvania

Guest Lecture: Multimodality in NLP UWashington Linguistics

2020 The 2nd Workshop Beyond Vision and Language: Integrating Real-world Knowledge CoLing

The University of Texas at Austin – Forum for Al

Cornell Learning Machines seminar

Stanford NLP seminar

SRI Center for Vision Technology Lab Panel Embodied Al

- 2018 Colloquium Talk Northwest NLP
- 2017 Invited Talk University of Notre Dame NLP Seminar

Invited Talk University of California, Irvine AI/ML Seminar

- **Invited Talk** Pacific Northwest National Laboratory
- 2016 **Invited Poster** The Impact of Computing in Our Physical World session of the CRA's Computing Community Consortium (CCC) Symposium on Computing Research
- 2015 Colloquium Talk Toyota Tech. Inst. of Chicago's Midwest Speech & Language Days
- 2013 Colloquium Talk Toyota Tech. Inst. of Chicago's Midwest Speech & Language Days