Yonatan Bisk

Assistant Professor of Computer Science

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

	Positions	
2020 –	Assistant Professor Carnegie Mellon University Language Technologies Institute Robotics Institute (courtesy)	
2022 –	Visiting Professor Meta Fundamental Al Research (FAIR)	w/ Dhruv Batra
2021 -	Consulting Professor Microsoft Research	
2019 –	Visiting Researcher Microsoft Research	w/ Jianfeng Gao
2017 –	Postdoctoral Scholar University of Washington & Allen Institute for Artificial Intelligence	w/ Yejin Choi
2015 –	Postdoctoral Scholar Information Sciences Institute, University of Southern California	w/ Daniel Marcu

Education

2015 **PhD in Computer Science** The University of Illinois at Urbana-Champaign,

Thesis: Unsupervised Grammar Induction with Combinatory Categorial Grammars

Advisor: Julia Hockenmaier

Committee: Jason Eisner, Dan Roth, ChengXiang Zhai

2009 BS in Computer Science The University of Texas at Austin Turing Scholar,

Thesis: The Necessity of Separating Control and Logic When Grounding Language using

Neuroevolution

Advisor: Risto Miikkulainen Second Reader: Raymond Mooney

	PhD Students TalkingToRobots.co			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	Yingshan Chang	she/her	Multimodal Reasoning	g		LTI	2022 –
PhD	Abitha Thankaraj	she/her	Language to Control		(co-A Kumar)	RI	2024 -
PhD	Jimin Sun	she/her	Tools			LTI	2024 –
PhD	Rosa Vitiello	she/her	Collaboration		(co-C Rose)	LTI	2024 –
PhD	Quanting Xie	he/him	LLMs for Robotics			RI	2024 –
	Alumni, Interns,	and	Undergraduates				
Ugrad	Claire Jin	she/her	Embodied Dialogue				2024
Ugrad	Maria Yampolsky	she/her	Audio				2024
Intern	Minyoung Hwang	she/her	Preference Learning				2024
MS	Quanting Xie	he/him	LLMs for Robotics			Med	hE 2023
MSAII	Seed emergence Harini Subramanyan Karthik Natarajan		Juanyun Mai Noel D Souza	-	a Morbale Zhang		2024
	,				S		

MRSD	Assistive Robotics fo	or Elder	•	,	D			2023
	Abhinav Gupta		he/him	Atharva			he/him	
	Praveen Venkatesh		he/him	Shaolin I	Nataria		he/him	
	Shivam Tripathy		he/him				2022	2022
MLT	Jimin Sun	she/her	Embodied Dialogo			LTI	2022 -	- 2023
Ugrad	Xiang Fan		Transformer Effici	iency	(co-E Strubell)			2022
Intern	Andy Liu		Theory-of-Mind		(co-G Neubig)			2022
Intern	Deogratias Amani	he/him	Grounding					2022
MRSD	Modular Teleop with	1 Auton	omy (*co-Z Eric	kson)				2022
	Jashkumar Diyora		he/him	Shruti G	angopadhyay		she/her	
	Jigar Patel		he/him	Prakhar	Pradeep		he/him	
	Shivani Sivakumar		she/her					
MCDS	Embodied Navigatio	n and I	nteraction					2022
	Adhokshaja Madhwara	ij	he/him	Kushagra	a Mahajan		he/him	
	Sai Vishwas Padigi		he/him	Vineeth	Reddy		he/him	
	Malaika Vijay		she/her	Zheng (J	lessica) Zhong		she/her	
MCDS	Embodied Dialogue	and To	M					2022
	Xinyue Chen		she/her	Nikhil G	•		he/him	
	Benny Jiang		he/him	Shubhan	n Phal		he/him	
	Prasoon Varshney		he/him					
MCDS	Novel Concept Learn							2022
	Bharani Ujjaini Kempa	aiah	she/her	Linyi Li			she/her	
MSAII	Visual Patent Search	1						2022
	Suchong Dong		she/her	Zhiyuan			he/him	
	Mansi Goyal		she/her		lendez Simon		she/her	
	Sreenidhi Sundaram		she/her		n Den Berghe		he/him	
MLT	Yingshan Chang	she/her	Multimodal Reaso	oning		LTI	2020 -	- 2022
MLT	Josh Zhanson	he/him	Embodied Visual	Reps		LTI	2020 -	- 2022
MS	Xiaoyu (Erin) Zhang	she/her	Collaborative Rob	ots	(co-O Kroemer)	5th	2021 -	- 2022
Ugrad	Feiyu (Gavin) Zhu	,	Video Summariza		(co-C Paxton)			2021
_					`			
Intern	Melanie Sclar		Symmetric Theory	y-ot-iviina	(co-G iveubig)			2021
Intern	Blessing Bassey		TextVQA					2021
	Journal Publicat	tions						
1	Training Vision-Lang	guage T	ransformers from	Captions	5			2023
	Liangke Gui, Yingshan (ın, Jiar	nfeng	
	Gao, <u>Yonatan Bisk</u>							
	Transactions on Machin	e Learnii	ng Research					
2	The Return of Lexic	al Depe	endencies: Neura	I Lexicaliz	ed PCFGs			2020
	Hao Zhu, <u>Yonatan Bisk</u> ,	Graham	Neubig					
	Transactions of the Asso	ociation	for Computational L	inguistics				
3	An HDP Model for	Inducin	g Combinatory C	ategorial	Grammars			2013
	Yonatan Bisk, Julia Hoo	kenmaie	r					
	Transactions of the Asso	ociation	for Computational L	inguistics				
	Conference Pub	licatio	ons					
4	Situated Instruction	Followi	inσ					2024
•	So Yeon Min, Xavi Puig			sung-Yen	Yang, Akshara Rai, P	rivam		2021
	Parashar, Ruslan Salakh					,		
	European Conference or				-			
5	VISREAS: Complex	-		Inanswers	able Questions			2024
S	Syeda Nahida Akter, Sa							2024
	Findings of the 62nd An					ics		
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6	Skews in the Phenomenon Space Hinder Generalization in Text-to-Image	2024
	Generation Yingshan Chang, Yasi Zhang, Zhiyuan Fang, Yingnian Wu, <u>Yonatan Bisk</u> , Feng Gao	
	European Conference on Computer Vision	
7	Vid2Robot: End-to-end Video-conditioned Policy Learning with Cross-Attention Transformers	2024
	Vidhi Jain, Maria Attarian, Nikhil J Joshi, Ayzaan Wahid, Danny Driess, Quan Vuong, Pannag R Sanketi, Pierre Sermanet, Stefan Welker, Christine Chan, Igor Gilitschenski, <u>Yonatan Bisk</u> , Debidatta Dwibedi	
	Robotics: Science and Systems	
8	SOTOPIA-π: Interactive Learning of Socially Intelligent Language Agents Ruiyi Wang, Haofei Yu, Wenxin Zhang, Zhengyang Qi, Maarten Sap, Graham Neubig, Yonatan Bisk, Hao Zhu	2024
	The 62nd Annual Meeting of the Association for Computational Linguistics	
9	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	2024
	Conference on Computer Vision and Pattern Recognition	
10	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 Representations (Spotlight)	2024
11	MOSAIC: Learning Unified Multi-Sensory Object Property Representations for	2024
11	Robot Perception Gyan Tatiya, Jonathan Francis, Ho-Hsiang Wu, Yonatan Bisk, Jivko Sinapov IEEE International Conference on Robotics and Automation	2024
12	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
		2022
13	Spatial-Language Attention Policies for Efficient Robot Learning Priyam Parashar, Vidhi Jain, Xiaohan Zhang, Jay Vakil, Sam Powers, Yonatan Bisk, Chris Paxton	2023
	Conference on Robot Learning	
14	SPAE: Semantic Pyramid AutoEncoder for Multimodal Generation with Frozen LLMs Lijun Yu, Yong Cheng, Zhiruo Wang, Vivek Kumar, Wolfgang Macherey, Yanping Huang, David A. Ross, Irfan Essa, Yonatan Bisk, Ming-Hsuan Yang, Kevin Murphy, Alexander Hauptmann, Lu Jiang	2023
	Thirty-seventh Conference on Neural Information Processing Systems	
15	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	2023
	Conference on Robot Learning	
16	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	

17	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	2023
	Thirty-seventh Conference on Neural Information Processing Systems: Competition Track	
18	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
19	The Framework Tax: Disparities Between Inference Efficiency in Research and Deployment Jared Fernandez, Jacob Kahn, Clara Na, Yonatan Bisk, Emma Strubell	2023
	The 2023 Conference on Empirical Methods in Natural Language Processing (Oral)	
20	Computational Language Acquisition with Theory of Mind Andy Liu, Hao Zhu, Emmy Liu, <u>Yonatan Bisk</u> , Graham Neubig	2023
	The Eleventh International Conference on Learning Representations	
21	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
22	Don't Copy the Teacher: Data and Model Challenges in Embodied Dialogue So Yeon Min, Hao Zhu, Ruslan Salakhutdinov, Yonatan Bisk Conference on Empirical Methods in Natural Language Processing	2022
00		2022
23	EventS ReaLM: Event Reasoning of Entity States via Language Models Evangelia Spiliopoulou, Artidoro Pagnoni, Yonatan Bisk, Eduard Hovy	2022
	Conference on Empirical Methods in Natural Language Processing	2022
24	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
25	Transformers are Adaptable Task Planners Vidhi Jain, Yixin Lin, Eric Undersander, Yonatan Bisk, Akshara Rai	2022
	Conference on Robot Learning	
26	Symmetric Machine Theory of Mind Melanie Sclar, Graham Neubig, Yonatan Bisk	2022
	39th International Conference on Machine Learning	
27	A Framework for Learning to Request Rich and Contextually Useful Information	2022
	from Humans Khanh Nguyen, Yonatan Bisk, Hal Daume III 39th International Conference on Machine Learning,	
28	Simulated Language Learning from Communicative Goals and Linguistic Input Hao Zhu, Yonatan Bisk, Graham Neubig Annual Meeting of the Cognitive Science Society (Oral)	2022
20		0000
29	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
30	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 Linguistics (Oral)	2022

31	FILM: Following Instructions in Language with Modular Methods So Yeon Min, Devendra Singh Chaplot, Pradeep Ravikumar, Yonatan Bisk, Ruslan Salakhutdinov	2022
	The Tenth International Conference on Learning Representations	
32	WebQA: Multihop and Multimodal QA Yingshan Chang, Mridu Narang, Hisami Suzuki, Guihong Cao, Jianfeng Gao, Yonatan Bisk Conference on Computer Vision and Pattern Recognition (Oral)	2022
33	Dependency Induction Through the Lens of Visual Perception Ruisi Su, Shruti Rijhwani, Hao Zhu, Junxian He, Xinyu Wang, Yonatan Bisk, Graham Neubig	2021
	The SIGNLL Conference on Computational Natural Language Learning	
34	Language Grounding with 3D Objects Jesse Thomason, Mohit Shridhar, Yonatan Bisk, Chris Paxton, Luke Zettlemoyer Conference on Robot Learning	2021
35	TACo: Token-aware Cascade Contrastive Learning for Video-Text Alignment Jianwei Yang, Yonatan Bisk, Jianfeng Gao International Conference on Computer Vision	2021
36	Few-shot Language Coordination by Modeling Theory of Mind Hao Zhu, Graham Neubig, Yonatan Bisk The Third of the Conference of Mind	2021
	The Thirty-eighth International Conference on Machine Learning	
37	Grounding 'Grounding' in NLP Khyathi Raghavi Chandu, Yonatan Bisk, Alan W Black Findings of The 2021 Conference of the Association for Computational Linguistics	2021
38	An Empirical Study on the Generalization Power of Neural Representations	2021
30	Learned via Visual Guessing Games Alessandro Suglia, Yonatan Bisk, Ioannis Konstas, Antonio Vergari, Emanuele Bastianelli, Andrea Vanzo, Oliver Lemon	2021
39	The 2021 Conference of the European Chapter of the Association for Computational Linguistics (Oral) Knowledge-driven Data Construction for Zero-shot Evaluation in Commonsense	2021
	Question Answering Kaixin Ma, Filip Ilievski, Jonathan Francis, Yonatan Bisk, Eric Nyberg, Alessandro Oltramari	-
	35th AAAI Conference on Artificial Intelligence	
40	ALFWorld: Aligning Text and Embodied Environments for Interactive Learning Mohit Shridhar, Xingdi Yuan, Marc-Alexandre Côté, Yonatan Bisk, Adam Trischler, Matthew Hausknecht	2021
	International Conference on Learning Representations	
41	Imagining Grounded Conceptual Representations from Perceptual Information in Situated Guessing Games Alessandro Suglia, Antonio Vergari, Ioannis Konstas, <u>Yonatan Bisk</u> , Emanuele Bastianelli,	2020
	Andrea Vanzo, Oliver Lemon	
	The 28th International Conference on Computational Linguistics (Oral)	
42	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	2020
	Conference on Empirical Methods in Natural Language Processing (Oral)	
43	RMM: A Recursive Mental Model for Dialog Navigation Homero Roman Roman, Yonatan Bisk, Jesse Thomason, Asli Celikyilmaz, Jianfeng Gao	2020
	Conference on Empirical Methods in Natural Language Processing: Findings	
44	ALFRED: A Benchmark for Interpreting Grounded Instructions for Everyday	2020
	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)	222
45	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 Intelligence (Oral)	2020

46	Robust Navigation with Language Pretraining and Stochastic Sampling Xiujun Li, Chunyuan Li, Qiaolin Xia, <u>Yonatan Bisk</u> , Asli Celikyilmaz, Jianfeng Gao, Noah A. Smith, Yejin Choi	2019
	Conference on Empirical Methods in Natural Language Processing and 9th International	
4-	Joint Conference on Natural Language Processing	2010
47	Defending Against Neural Fake News Rowan Zellers, Ari Holtzman, Hannah Rashkin, Yonatan Bisk, Ali Farhadi, Franziska Roesner,	2019
	Yejin Choi	
	Thirty-third Conference on Neural Information Processing Systems	
48	Improving Robot Success Detection using Static Object Data Rosario Scalise, Jesse Thomason, Yonatan Bisk, Siddhartha Srinivasa	2019
	IEEE/RSJ International Conference on Intelligent Robots and Systems	
49	Early Fusion for Goal Directed Robotic Vision Aaron Walsman, <u>Yonatan Bisk</u> , Saadia Gabriel, Dipendra Misra, Yoav Artzi, Yejin Choi, Dieter Fox	2019
	2019 IEEE/RSJ International Conference on Intelligent Robots and Systems - RoboCup Best Paper Award finalist	
50	HellaSwag: Can a Machine Really Finish Your Sentence?	2019
	Rowan Zellers, Ari Holtzman, <u>Yonatan Bisk</u> , Ali Farhadi, Yejin Choi	
	Association for Computational Linguistics	2010
51	From Recognition to Cognition: Visual Commonsense Reasoning Rowan Zellers, Yonatan Bisk, Ali Farhadi, Yejin Choi	2019
	The IEEE Conference on Computer Vision and Pattern Recognition (Oral)	
52	Tactical Rewind: Self-Correction via Backtracking in Vision-and-Language	2019
	Navigation	
	Liyiming Ke, Xiujun Li, <u>Yonatan Bisk</u> , Ari Holtzman, Zhe Gan, Jingjing Liu, Jianfeng Gao, Yejin	
	Choi, Siddhartha Srinivasa The IEEE Conference on Computer Vision and Pattern Recognition (Oral)	
53	Prospection: Interpretable Plans From Language By Predicting the Future	2019
33	Chris Paxton, Yonatan Bisk, Jesse Thomason, Arunkumar Byravan, Dieter Fox	2019
	International Conference on Robotics and Automation (ICRA)	
54	Shifting the Baseline: Single Modality Performance on Visual Navigation & QA Jesse Thomason, Daniel Gordon, Yonatan Bisk	2019
	Annual Conference of the North American Chapter of the Association for Computational	
55	Linguistics Benchmarking Hierarchical Script Knowledge	2019
	Yonatan Bisk, Jan Buys, Karl Pichotta, Yejin Choi	2010
	Annual Conference of the North American Chapter of the Association for Computational Linguistics (Oral)	
56	Character-based Surprisal as a Model of Reading Difficulty in the Presence of	2019
	Errors Michael Hahn, Frank Keller, Yonatan Bisk, Yonatan Belinkov	
	The 41st Annual Meeting of the Cognitive Science Society (Oral)	
57	SWAG: A Large-Scale Adversarial Dataset for Grounded Commonsense Inference	2018
31	Rowan Zellers, <u>Yonatan Bisk</u> , Roy Schwartz, Yejin Choi	2010
	Conference on Empirical Methods in Natural Language Processing (Oral)	
58	Synthetic and Natural Noise Both Break Neural Machine Translation Yonatan Belinkov, Yonatan Bisk	2018
	6th International Conference on Learning Representations (Oral)	
59	Learning Interpretable Spatial Operations in a Rich 3D Blocks World Yonatan Bisk, Kevin Shih, Yejin Choi, Daniel Marcu	2018
	Thirty-Second Conference on Artificial Intelligence (AAAI-18)	
60	Natural Language Inference from Multiple Premises Alice Lai, Yonatan Bisk, Julia Hockenmaier	2017
	Eighth International Joint Conference on Natural Language Processing (Oral)	

61	Natural Language Communication with Robots Yonatan Bisk, Deniz Yuret, Daniel Marcu	2016
	15th Annual Conference of the North American Chapter of the Association for	
	Computational Linguistics (Oral)	
62	Supertagging with LSTMs	2016
	Ashish Vaswani, <u>Yonatan Bisk</u> , Kenji Sagae, Ryan Musa	
	15th Annual Conference of the North American Chapter of the Association for Computational Linguistics (Short Papers) (Oral)	
63	Evaluating Induced CCG Parsers on Grounded Semantic Parsing Yonatan Bisk, Siva Reddy, John Blitzer, Julia Hockenmaier, Mark Steedman	2016
	2016 Conference on Empirical Methods in Natural Language Processing	
64	Probing the Linguistic Strengths and Limitations of Unsupervised Grammar Induction	2015
	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)	
65	Labeled Grammar Induction with Minimal Supervision	2015
	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)	
66	Simple Robust Grammar Induction with Combinatory Categorial Grammar	2012
00	Yonatan Bisk, Julia Hockenmaier	2012
	Twenty-Sixth Conference on Artificial Intelligence (AAAI-12)	
67	Document-Topic Hierarchies from Document Graphs	2012
	Tim Weninger, Yonatan Bisk, Jiawei Han	
	21st ACM international conference on Information and knowledge management (CIKM	
68	2012) Normal-form parsing for CCGs with generalized composition and type-raising	2010
00	Julia Hockenmaier, Yonatan Bisk	2010
	23rd International Conference on Computational Linguistics (Coling 2010)	
	Workshop Publications	
	·	2022
69	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
70	Tackling AlfWorld with Action Attention and Common Sense from Language	2022
70	Models Yue Wu, So Yeon Min, Yonatan Bisk, Ruslan Salakhutdinov, Shrimai Prabhumoye	2022
	Language and Reinforcement Learning Workshop at NeurIPS 2022	
71	Worst of Both Worlds: Biases Compound in Pre-trained Vision-and-Language	2022
	Models	
	Tejas Srinivasan, <u>Yonatan Bisk</u>	
	4th Workshop on Gender Bias in Natural Language Processing	
72	KB-VLP: Knowledge Based Vision and Language Pretraining	2021
	Kezhen Chen, Qiuyuan Huang, <u>Yonatan Bisk</u> , Daniel McDuff, Jianfeng Gao ICML21 Workshop on Self-Supervised Learning	
72	·	2020
73	A Benchmark for Structured Procedural Knowledge Extraction from Cooking Videos	2020
	Frank F. Xu, Lei Ji, Botian Shi, Junyi Du, Graham Neubig, <u>Yonatan Bisk</u> , Nan Duan Workshop on NLP Beyond Text	
74	Inducing Grammars with and for Neural Machine Translation	2018
	Ke Tran, Yonatan Bisk 2nd Workshop on Neural Machine Translation (Best Paper)	
75		2010
75	Bridging HMMs and RNNs through Architectural Transformations Jan Buys, Yonatan Bisk, Yejin Choi	2018
	32nd Conference on Neural Information Processing Systems (NIPS 2018), IRASL workshop	

76	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
77	Unsupervised Neural Hidden Markov Models Ke Tran, Yonatan Bisk, Ashish Vaswani, Daniel Marcu, Kevin Knight Workshop on Structured Prediction for NLP (Oral)	2016
78	Induction of Linguistic Structure with Combinatory Categorial Grammars Yonatan Bisk, Julia Hockenmaier NAACL HLT Workshop on Induction of Linguistic Structure	2012
	Preprint Publications	
79	Tools Fail: Detecting Silent Errors in Faulty Tools Jimin Sun, So Yeon Min, Yingshan Chang, Yonatan Bisk ArXiv	2024
80	Language Models Need Inductive Biases to Count Inductively Yingshan Chang, Yonatan Bisk ArXiv	2024
81	DiffusionPID: Interpreting Diffusion via Partial Information Decomposition Shaurya Dewan, Rushikesh Zawar, Prakanshul Saxena, Yingshan Chang, Andrew Luo, Yonatan Bisk ArXiv	2024
82	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
83	AgentKit: Flow Engineering with Graphs, not Coding Yue Wu, Yewen Fan, So Yeon Min, Shrimai Prabhumoye, Stephen McAleer, Yonatan Bisk, Ruslan Salakhutdinov, Yuanzhi Li, Tom Mitchell ArXiv	2024
84	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
85	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

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

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

2023

2023

88 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

89	Singh Chaplot, Changan Chen, Claudia F Anthony Francis, Chuang Gan, Kristen G Aniruddha Kembhavi, Jacob Krantz, Stel Maksymets, Roberto Martín-Martín, Roo Silvio Savarese, Manolis Savva, Mohit Sh	Al Workshop , Tommaso Campari, Angel X. Chang, Devendra Pérez D'Arpino, Kiana Ehsani, Ali Farhadi, Li Fei-Fei, Frauman, David Hall, Winson Han, Unnat Jain, fan Lee, Chengshu Li, Sagnik Majumder, Oleksandr zbeh Mottaghi, Sonia Raychaudhuri, Mike Roberts, Fridhar, Niko Sünderhauf, Andrew Szot, Ben Talbot, Alexander Toshev, Joanne Truong, Luca Weihs, Jiajun	2022
90	Multi-View Learning for Vision-and Qiaolin Xia, Xiujun Li, Chunyuan Li, Yon A. Smith ArXiv	I-Language Navigation latan Bisk, Zhifang Sui, Jianfeng Gao, Yejin Choi, Noah	2020
91			2019
92	Balancing Shared Autonomy with Rosario Scalise, Yonatan Bisk, Maxwell FArXiv	Human-Robot Communication Forbes, Daqing Yi, Yejin Choi, Siddhartha Srinivasa	2018
93	CHALET: Cornell House Agent Le Claudia Yan, Dipendra Misra, Andrew Be ArXiv Preprint 1801.07357	arning Environment ennett, Aaron Walsman, <u>Yonatan Bisk,</u> Yoav Artzi	2018
	Thesis Committees		
_	PhD Nikolaos Gkanatsios	Katerina Fragkiadaki	, CMU
_	PhD Gabe Sarch	Katerina Fragkiadaki and Mike Tarr	, CMU
_	PhD Seungchan Kim	Sebastian Scherer	, CMU
_	PhD Brendon Boldt	David Mortensen	, CMU
_	PhD Xiaoyu Zhu	Alex Hauptmann	, CMU
_	PhD Liangke Gui	Alex Hauptmann	, CMU
2024	PhD Jielin Qiu	Lei Li & Christos Faloutsos	, CMU
2024	PhD Nikita Srivatsan	Taylor Berg-Kirkpatrick	, CMU
2024	PhD Lijun Yu	Alex Hauptmann	, CMU
2023	MSR Mateo Guaman Castro	Sebastian Scherer	, CMU
2023	PhD Kaixin Ma	Eric Nyberg	, CMU
2023	PhD Nicholas Botzer	Tim Weninger, Notre	Dame
2023	PhD Naoki Otani	Ed Hovy	, CMU
2023	PhD Dylan Ebert	Ellie Pavlick,	
2022	PhD Shikib Mehri	Maxine Eskenazi	
2022	PhD Shruti Palaskar	Alan Black and Florian Metze	
2022	PhD Evangelia Spiliopoulou	Ed Hovy	
2022	PhD Dheeraj Rajagopal	Ed Hovy	
2022	PhD Volkan Cirik	Louis-Philippe Morency and Taylor Berg-Kirkpatrick	
2022	MLT Aishwarya Jadhav	Katia Sycara	
2021	PhD Pengcheng Yin	Graham Neubig	
2020	PhD Zihang Dai	Yiming Yang	
2021	MLT Jing Wen	Katerina Fragkiadaki	, CIVIU

Oliver Kroemer, CMU

2021 Qual Mohit Sharma

	Teaching		
2024		o-Daniel Fried # Students: 135, Sl	D
2024	11-851 Talking to Robots	# Students: 16, F	
2023	_	# Students: 10, 17 Emma Strubell # Students: 69, F	
	-	p-Daniel Fried # Students: 107, SI	
2022	<u> </u>	Emma Strubell # Students: 42, F	
2022	11-777 MultiModal Machine Learning	# Students: 94, S	
2021	<u> </u>	# Students: 94, 56 Emma Strubell # Students: 31, Fr	
2021	11-777 MultiModal Machine Learning	# Students: 42, S	
	11-777 Wultiwodai Waciiiie Learning	# Students. 42, 31	ı
	Diversity and Inclusion		
2022	NAACL 2022 DEI Co-Chair		
2021	Restructuring of LTI PhD Admissions,	<i>2y</i>	ır
2020	LTI DEI Committee,	2yı	
2019	CrashCourse AI Educational YouTube series targeted at high-s	•	
2013	Ashe. Co-Written with Lana Yarosh and Tim Weninger,	ly	
2018	ACM Council on Diversity & Inclusion Investigating and init ACM on behalf of underrepresented groups.,	•	
_	Grace Hopper PC member Review submissions to Al Technic	•	
2016	NCWIT Collegiate Award Review applications for the National Center for Women & Information Technology's Collegiate Award honoring college women, ISI 3yrs		
2009	NCWIT Aspirations in Computing Review applications for the Information Technology's Award for Aspirations in Computing winterested in CS, UIUC, ISI	e National Center for Women &	
-	Tech Junket/Women in CS Outreach for local Urbana-Cham <i>2yrs</i>	· · · · · · · · · · · · · · · · · · ·	•
2008	Freshman Research Mentor Mentored students to perform re-	search, UTexas 1 _y	/r
_	First Bytes Helped organize a summer camp for girls interested	•	•
_	Co-Founded Breakfast Bytes Professor talks for pre-college st		ır
_	CS Roadshow CS presentations at Austin middle and high schools, UTexas 1y		
	о нешение образование и нешение и не не	2)	
	(Senior) Area Chair / Action Editor		
2024	Conference on Robot Learning (CoRL)	Rob	0
_	Conference on Computer Vision and Pattern Recognition	(CVPR) C	V
_	International Conference on Learning Representations (ICI	_R) AI/M	L
_	European Chapter of the Association for Computational L	inguistics (EACL) NL	Р
_	Senior AE: ACL Rolling Review (ARR)	NL	Р
_	AE: Transactions on Machine Learning Research (TMLR)	AI/M	L
2023	Neural Information Processing Systems (NeurIPS)	AI/M	L
_	International Conference on Machine Learning (ICML)	AI/M	L
_	AE: Transactions on Machine Learning Research (TMLR)	AI/M	L
_	Senior AE: ACL Rolling Review (ARR)	NL	Р
_	Ethics Co-Chair: Association for Computational Linguistics	s (ACL) NL	Р
_	Empirical Methods in Natural Language Proc (EMNLP)	NL	Р
2022	International Conference on Learning Representations (ICI	-R) AI/M	L
_	Senior MR: Association for the Advancement of Artificial	Intelligence (AAAI) AI/M	L
_	Senior AC: Empirical Methods in Natural Language Proc	(EMNLP) NL	Р

- 2021 - - - 2020 - 2019 2018	AE: Transactions on Machine Learning Research (TMLR) Senior AE: ACL Rolling Review (ARR) Neural Information Processing Systems (NeurIPS) International Conference on Learning Representations (ICLR) Association for Computational Linguistics (ACL) Empirical Methods in Natural Language Proc (EMNLP) Neural Information Processing Systems (NeurIPS) ACL Rolling Review (ARR) Association for Computational Linguistics (ACL) Neural Information Processing Systems (NeurIPS) Asia-Pacific chapter of the Association for Computational Linguistics (ACL) Association for Computational Linguistics (ACL)			
2016		onal Conference on Computational Linguistics use on Lexical and Computational Semantics (*SEM)	NLP 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		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	
Б. І	TACL	Transactions of the Assoc. for Computational Linguistics	2019 - 2023 9 - 2021,2023	
Robo	CoRL	<u> </u>	9 – 2021,2023 2022	
	AURO RSS	Autonomous Robots Robotics: Science and Systems	2022, 2024	
	HRI	Human Robot Interaction	2022, 2024 2020 – 2024	
	ICRA		19,2023, 2024	
	IJRR	International Journal of Robotics Research	2017	
	IROS	IEEE/RSJ International Conference on Intelligent Robots and Systems	2019,23–24	
	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	

Organization (Workshops and Conference)

2022 **Workshop** *Embodied AI Workshop* – *Challenge Organizer* Computer Vision and Pattern Recognition

- 2021 **Workshop** *Embodied Al Workshop Challenge Organizer* Computer Vision and Pattern Recognition
- 2020 **Workshop** *Embodied Vision, Actions & Language Workshop* European 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
- 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
- 2022 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 AI

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