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 –	•	leta Fundamental AI Res	earch (FAIR)	ı	w/ Dhru	v Batra
2021 -	Consulting Professor	r Microsoft Research				
2019 –	Visiting Researcher	Microsoft Research		и	v/ Jianfe	eng Gao
2017 –	Postdoctoral Scholar University of Washingto	r n & Allen Institute for Art	ificial Intelligence		w/ Ye	ijin Choi
2015 –	Postdoctoral Schola Information Sciences Ins	r stitute, University of South	ern California	,	w/ Danie	el Marcu
	Education					
		cionas The University o	f Illinaia at Iluhana Ch			
2015	Thesis: Unsupervised Advisor: Julia Hockenm	cience The University of I Grammar Induction valer aier er, Dan Roth, ChengXiang	vith Combinatory Ca		mars	
2009	BS in Computer Science <i>The University of Texas at Austin</i> Turing Scholar, Thesis: The Necessity of Separating Control and Logic When Grounding Language using Neuroevolution Advisor: Risto Miikkulainen Second Reader: Raymond Mooney					
	PhD Students					
PhD	Hao Zhu	he/him Theory of Mind	(co-G N	eubig)	LTI	2019 –
PhD	Jared Fernandez	he/him Efficiency	(co-E St	rubell)	LTI	2020 –
PhD	Vidhi Jain	she/her Language to Co	ontrol		RI	2021 -
PhD	Tiffany Min	she/her Embodiment	(co-R Sa	alakhutdinov)	MLD	2021 –
PhD	Yingshan Chang	she/her Multimodal Rea	asoning		LTI	2022 –
PhD	Abitha Thankaraj	she/her Language to Co	ontrol (co-A K	umar)	RI	2024 –
	Alumni, Interns,	, and Undergradu	ates			
Ugrad	Claire Jin	she/her Embodied Dialo	ogue			2024
Ugrad	Maria Yampolsky	she/her Audio				2024
Intern	Minyoung Hwang	she/her Preference Lear	ning she/her			2024
MS	Quanting Xie	he/him LLMs for Robotics he/him			Mech	E 2023
MSAII	Seed emergence Harini Subramanyan	Juanyun Mai	Ameya Morbale	€		2024
MRSD	Karthik Natarajan	Noel D Souza or Eldercare (*co-Z Eri	Bohao Zhang			2023
MC2D	Abhinav Gupta	he/him	Atharva Pusalkar		he/him	2023
	Praveen Venkatesh	he/him	Shaolin Kataria		he/him	
MLT	Shivam Tripathy Jimin Sun	he/him she/her <i>Embodied Dialo</i>	ogue	LTI	2022	- 2023

Ugrad	Xiang Fan	Transformer Effici	ency (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 Autor	nomy (*co-Z Erick	cson)		2022
	Jashkumar Diyora	he/him	Shruti Gangopadhyay	she/her	
	Jigar Patel	he/him	Prakhar Pradeep	he/him	
	Shivani Sivakumar	she/her			
MCDS	Embodied Navigation and I	nteraction			2022
	Adhokshaja Madhwaraj	he/him	Kushagra Mahajan	he/him	
	Sai Vishwas Padigi	he/him	Vineeth Reddy	he/him	
MCDC	Malaika Vijay	she/her	Zheng (Jessica) Zhong	she/her	2022
MCDS	Embodied Dialogue and To Xinyue Chen	she/her	Nikhil Gupta	he/him	2022
	Benny Jiang	he/him	Shubham Phal	he/him	
	Prasoon Varshney	he/him	Shabham T hai	ne/mm	
MCDS	Novel Concept Learning	,			2022
	Bharani Ujjaini Kempaiah	she/her	Linyi Li	she/her	
MSAII	Visual Patent Search		·		2022
	Suchong Dong	she/her	Zhiyuan Guo	he/him	
	Mansi Goyal	she/her	Marta Mendez Simon	she/her	
	Sreenidhi Sundaram	she/her	Leon Van Den Berghe	he/him	
MLT	Yingshan Chang she/her	Multimodal Reaso	ning	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 Summarizat	cion (co-C Paxton)		2021
Intern	Melanie Sclar	Symmetric Theory	-of-Mind (co-G Neubig)		2021
Intern	Blessing Bassey	TextVQA	()		2021
	Journal Publications				
1	Training Vision-Language T Liangke Gui, Yingshan Chang, G Gao, <u>Yonatan Bisk</u> Transactions on Machine Learning	(iuyuan Huang, Subh		ın, Jianfeng	2023
2	The Return of Lexical Deportment of Lexical	n Neubig			2020
3	An HDP Model for Inducin	•	_		2013
3	Yonatan Bisk, Julia Hockenmaie Transactions of the Association	r			2010
_	Conference Publication	ons			
4	OpenEQA: Embodied Ques Arjun Majumdar, Anurag Ajay, A Henaff, Sneha Silwal, Paul Mcva Qiyang Li, Ben Newman, Mohit Yonatan Bisk, Dhruv Batra, Mri Aravind Rajeswaran	Xiaohan Zhang, Pran ay, Oleksandr Maksyr Sharma, Vincent Be nal Kalakrishnan, Fra	av Putta, Sriram Yenamandra, nets, Sergio Arnaud, Karmesh rges, Shiqi Zhang, Pulkit Agrav anziska Meier, Chris Paxton, Sa	Mikael Yadav, wal,	2024
	Conference on Computer Vision	_			
5	SOTOPIA: Interactive Eval Xuhui Zhou, Hao Zhu, Leena M Morency, <u>Yonatan Bisk</u> , Daniel F The Twelfth International Confe	athur, Ruohong Zhai Fried, Graham Neubiį	ng, Haofei Yu, Zhengyang Qi, I g, Maarten Sap		2024
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6	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
7	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, <u>Yonatan Bisk</u> , Daniel Fried, Uri Alon, Graham Neubig	2024
8	The Twelfth International Conference on Learning Representations Spatial-Language Attention Policies for Efficient Robot Learning Priyam Parashar, Vidhi Jain, Xiaohan Zhang, Jay Vakil, Sam Powers, Yonatan Bisk, Chris Paxton Conference on Polest Learning	2023
9	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 A. Ross, Irfan Essa, Yonatan Bisk, Ming-Hsuan Yang, Kevin Murphy, Alexander Hauptmann, Lu Jiang Thirty-seventh Conference on Neural Information Processing Systems	2023
10	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
11	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	
12	Thirty-seventh Conference on Neural Information Processing Systems 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
13	Thirty-seventh Conference on Neural Information Processing Systems: Competition Track 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
14	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
15	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
16	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
17	Don't Copy the Teacher: Data and Model Challenges in Embodied Dialogue So Yeon Min, Hao Zhu, Ruslan Salakhutdinov, Yonatan Bisk	2022
18	Conference on Empirical Methods in Natural Language Processing EvEntS ReaLM: Event Reasoning of Entity States via Language Models Evangelia Spiliopoulou, Artidoro Pagnoni, Yonatan Bisk, Eduard Hovy Conference on Empirical Methods in Natural Language Processing	2022
	Conference on Empirical Methods in Matural Language Frocessing	

19	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
20	Transformers are Adaptable Task Planners Vidhi Jain, Yixin Lin, Eric Undersander, Yonatan Bisk, Akshara Rai Conference on Robot Learning	2022
21	Symmetric Machine Theory of Mind Melanie Sclar, Graham Neubig, Yonatan Bisk 39th International Conference on Machine Learning	2022
22	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
23	Simulated Language Learning from Communicative Goals and Linguistic Input Hao Zhu, Yonatan Bisk, Graham Neubig Annual Meeting of the Cognitive Science SocietyOral	2022
24	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
25	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 LinguisticsOral	2022
26	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
27	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
28	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
29	Language Grounding with 3D Objects Jesse Thomason, Mohit Shridhar, Yonatan Bisk, Chris Paxton, Luke Zettlemoyer Conference on Robot Learning	2021
30	TACo: Token-aware Cascade Contrastive Learning for Video-Text Alignment Jianwei Yang, Yonatan Bisk, Jianfeng Gao International Conference on Computer Vision	2021
31	Few-shot Language Coordination by Modeling Theory of Mind Hao Zhu, Graham Neubig, Yonatan Bisk The Thirty-eighth International Conference on Machine Learning	2021
32	Grounding 'Grounding' in NLP Khyathi Raghavi Chandu, Yonatan Bisk, Alan W Black Findings of The 2021 Conference of the Association for Computational Linguistics	2021
33	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

34	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
35	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	
36	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 LinguisticsOral	
37	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 ProcessingOral	
38	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
39	ALFRED: A Benchmark for Interpreting Grounded Instructions for Everyday	2020
	Tasks Mohit Shridhar, Jesse Thomason, Daniel Gordon, <u>Yonatan Bisk</u> , Winson Han, Roozbeh Mottaghi, Luke Zettlemoyer, Dieter Fox	
	The IEEE Conference on Computer Vision and Pattern Recognition (CVPR)	
40	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
4.1	Thirty-Fourth AAAI Conference on Artificial IntelligenceOral	0010
41	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
42	Conference on Empirical Methods in Natural Language Processing and 9th International Joint Conference on Natural Language Processing Defending Against Neural Fake News	2019
	Rowan Zellers, Ari Holtzman, Hannah Rashkin, <u>Yonatan Bisk</u> , Ali Farhadi, Franziska Roesner, Yejin Choi	
	Thirty-third Conference on Neural Information Processing Systems	2010
43	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
44	Early Fusion for Goal Directed Robotic Vision	2019
44	Aaron Walsman, <u>Yonatan Bisk</u> , Saadia Gabriel, Dipendra Misra, Yoav Artzi, Yejin Choi, Dieter Fox	2013
	2019 IEEE/RSJ International Conference on Intelligent Robots and Systems - RoboCup Best Paper Award finalist	2010
45	HellaSwag: Can a Machine Really Finish Your Sentence? Rowan Zellers, Ari Holtzman, Yonatan Bisk, Ali Farhadi, Yejin Choi Association for Computational Linguistics	2019
46	From Recognition to Cognition: Visual Commonsense Reasoning	2019
40	Rowan Zellers, Yonatan Bisk, Ali Farhadi, Yejin Choi The IEEE Conference on Computer Vision and Pattern RecognitionOral	2019
47	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	2010
	The IEEE Conference on Computer Vision and Pattern RecognitionOral	

48	Prospection: Interpretable Plans From Language By Predicting the Future Chris Paxton, Yonatan Bisk, Jesse Thomason, Arunkumar Byravan, Dieter Fox	2019
	International Conference on Robotics and Automation (ICRA)	2010
49	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	
50	Linguistics Benchmarking Hierarchical Script Knowledge Yonatan Bisk, Jan Buys, Karl Pichotta, Yejin Choi	2019
	Annual Conference of the North American Chapter of the Association for Computational LinguisticsOral	
51	Character-based Surprisal as a Model of Reading Difficulty in the Presence of Errors	2019
	Michael Hahn, Frank Keller, <u>Yonatan Bisk</u> , Yonatan Belinkov The 41st Annual Meeting of the Cognitive Science SocietyOral	
52	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
53	Synthetic and Natural Noise Both Break Neural Machine Translation Yonatan Belinkov, Yonatan Bisk	2018
	6th International Conference on Learning RepresentationsOral	
54	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)	
55	Natural Language Inference from Multiple Premises Alice Lai, Yonatan Bisk, Julia Hockenmaier	2017
	Eighth International Joint Conference on Natural Language ProcessingOral	
56	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 LinguisticsOral	201.0
57	Supertagging with LSTMs Ashish Vaswani, Yonatan Bisk, Kenji Sagae, Ryan Musa	2016
	15th Annual Conference of the North American Chapter of the Association for Computational Linguistics (Short Papers)Oral	
58	Evaluating Induced CCG Parsers on Grounded Semantic Parsing Yonatan Bisk, Siva Reddy, John Blitzer, Julia Hockenmaier, Mark Steedman 2016 Conference on Empirical Methods in Natural Language Processing	2016
59	Probing the Linguistic Strengths and Limitations of Unsupervised Grammar	2015
	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	
60	Labeled Grammar Induction with Minimal Supervision Yonatan Bisk, Christos Christodoulopoulos, Julia Hockenmaier	2015
	53rd Annual Meeting of the Association for Computational Linguistics and the 7th	
61	International Joint Conference on Natural Language Processing (Volume 2: Short Papers) Simple Robust Grammar Induction with Combinatory Categorial Grammar Yonatan Bisk, Julia Hockenmaier	2012
	Twenty-Sixth Conference on Artificial Intelligence (AAAI-12)	
62	Document-Topic Hierarchies from Document Graphs Tim Weninger, Yonatan Bisk, Jiawei Han	2012
	21st ACM international conference on Information and knowledge management (CIKM 2012)	
63	Normal-form parsing for CCGs with generalized composition and type-raising Julia Hockenmaier, Yonatan Bisk	2010
	23rd International Conference on Computational Linguistics (Coling 2010)	

Workshop Publications

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64	MAEA: Multimodal Attribution for Embodied Al Vidhi Jain, Jayant Sravan Tamarapalli, Sahiti Yerramilli, Yonatan Bisk Progress and Challenges in Building Trustworthy Embodied AI at NeurIPS 2022		
65	Tackling AlfWorld with Action Attention and Common Sense from Language Models	2022	
	Yue Wu, So Yeon Min, Yonatan Bisk, Ruslan Salakhutdinov, Shrimai Prabhumoye Language and Reinforcement Learning Workshop at NeurIPS 2022		
66	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	
67	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	
68	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	
69	Inducing Grammars with and for Neural Machine Translation Ke Tran, Yonatan Bisk 2nd Workshop on Neural Machine Translation	2018	
70	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	
71	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	
72	Unsupervised Neural Hidden Markov Models Ke Tran, Yonatan Bisk, Ashish Vaswani, Daniel Marcu, Kevin Knight Workshop on Structured Prediction for NLPOral	2016	
73	Induction of Linguistic Structure with Combinatory Categorial Grammars Yonatan Bisk, Julia Hockenmaier NAACL HLT Workshop on Induction of Linguistic Structure	2012	
	Preprint Publications		
74	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	
75	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	
76	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	
77	Vid2Robot: End-to-end Video-conditioned Policy Learning with Cross-Attention Transformers Vidhi Jain, Maria Attarian, Nikhil J Joshi, Ayzaan Wahid, Danny Driess, Quan Vuong, Pannag R Sanketi, Pierre Sermanet, Stefan Welker, Christine Chan, Igor Gilitschenski, Yonatan Bisk, Debidatta Dwibedi ArXiv	2024	

SOTOPIA- π : Interactive Learning of Socially Intelligent Language Agents 78

Ruiyi Wang, Haofei Yu, Wenxin Zhang, Zhengyang Qi, Maarten Sap, Graham Neubig, Yonatan Bisk, Hao Zhu

ArXiv

79 Toward General-Purpose Robots via Foundation Models: A Survey and Meta-Analysis

2023

2024

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

80 Open X-Embodiment: Robotic Learning Datasets and RT-X Models 2023

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

81	Reasoning about the Unseen for Efficient Outdoor Object Navigation Quanting Xie, Tianyi Zhang, Kedi Xu, Matthew Johnson-Roberson, Yonatan Bisk ArXiv				
82	Plan, Eliminate, and Track – Lan	guage Models are Good Teachers for Embodied	2023		
	Agents	Ruslan Salakhutdinov, Amos Azaria, Yuanzhi Li, Tom			
	Mitchell, Shrimai Prabhumoye	usian Salakhutumov, Amos Azana, Tuanzin El, Tom			
	ArXiv				
83	Retrospectives on the Embodied		2022		
		<u>k,</u> Tommaso Campari, Angel X. Chang, Devendra Pérez D'Arpino, Kiana Ehsani, Ali Farhadi, Li Fei-Fei,			
	Anthony Francis, Chuang Gan, Kristen	Grauman, David Hall, Winson Han, Unnat Jain,			
		efan Lee, Chengshu Li, Sagnik Majumder, Oleksandr ozbeh Mottaghi, Sonia Raychaudhuri, Mike Roberts,			
	Silvio Savarese, Manolis Savva, Mohit S	Shridhar, Niko Sünderhauf, Andrew Szot, Ben Talbot,			
	Joshua B. Tenenbaum, Jesse Thomasor Wu	n, Alexander Toshev, Joanne Truong, Luca Weihs, Jiajun			
	ArXiv				
84	Multi-View Learning for Vision-ar	nd-Language Navigation	2020		
		onatan Bisk, Zhifang Sui, Jianfeng Gao, Yejin Choi, Noah			
	A. Smith ArXiv				
85	FIND: Identifying Functionally an	d Structurally Important Features in Protein	2019		
	Sequences with Deep Neural Net				
	Ranjani Murali, James Hemp, Victoria (bioRxiv	Orphan, <u>Yonatan Bisk</u>			
86	CHALET: Cornell House Agent L	earning Environment	2018		
	Claudia Yan, Dipendra Misra, Andrew E	Bennett, Aaron Walsman, <u>Yonatan Bisk</u> , Yoav Artzi			
	ArXiv Preprint 1801.07357				
	Thesis Committees				
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2020	PhD Zihang Dai	Yiming Yang,			
2021	MLT Jing Wen	Katerina Fragkiadaki,	, CIVIU		

Qual Mohit Sharma Oliver Kroemer, CMU

	Teaching		
2024	11-777 MultiModal Machine Learning Co-Da	aniel Fried $\#$ Students: 135, SP	
2023	11-851 Talking to Robots	# Students: 16, FA	
	11-767 On-Device Machine Learning Co-Em	<i>ma Strubell</i> # Students: 69, FA	
	11-777 MultiModal Machine Learning Co-Da	aniel Fried $\#$ Students: 107, SP	
2022	11-767 On-Device Machine Learning Co-Em	ma Strubell # Students: 42, FA	
	11-777 MultiModal Machine Learning	# Students: 94, SP	
2021	11-767 On-Device Machine Learning Co-Em	ma 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,	2уі	
2020	LTI DEI Committee,	2yrs	
2019	CrashCourse AI Educational YouTube series targeted at high-scho	ol age viewers. Hosted by Jabril	
	Ashe. Co-Written with Lana Yarosh and Tim Weninger,	1yr	
2018	ACM on book of undergonage and groups	•	
	ACM on behalf of underrepresented groups.,	1yr	
2016	Grace Hopper PC member Review submissions to Al Technical T	•	
2010	NCWIT Collegiate Award Review applications for the National Center for Women & Information Technology's Collegiate Award honoring college women, ISI 3yr		
2009	NCWIT Aspirations in Computing Review applications for the N	•	
	Information Technology's Award for Aspirations in Computing whic		
	interested in CS, UIUC, ISI	6yrs	
_	Tech Junket/Women in CS Outreach for local Urbana-Champaign pre-college students, UIUC		
2000	2yrs	al IIT	
2008	Freshman Research Mentor Mentored students to perform resear	•	
_	First Bytes Helped organize a summer camp for girls interested in		
_	Co-Founded Breakfast Bytes Professor talks for pre-college stude		
_	CS Roadshow CS presentations at Austin middle and high schools	, UTexas 1yr	
	(Senior) Area Chair / Action Editor		
2024	Conference on Computer Vision and Pattern Recognition (CV	/PR) CV	
_	International Conference on Learning Representations (ICLR)	AI/ML	
_	European Chapter of the Association for Computational Lingu		
_	Senior AE: ACL Rolling Review (ARR)	NLF	
_	AE: Transactions on Machine Learning Research (TMLR)	AI/ML	
2023	Neural Information Processing Systems (NeurIPS)	AI/ML	
_	International Conference on Machine Learning (ICML)	AI/ML	
_	AE: Transactions on Machine Learning Research (TMLR)	AI/ML	
_	Senior AE: ACL Rolling Review (ARR)	NLF	
_	Ethics Co-Chair: Association for Computational Linguistics (A	NLF	
_	Empirical Methods in Natural Language Proc (EMNLP)	NLF	
2022	International Conference on Learning Representations (ICLR)	AI/ML	
_	Senior MR: Association for the Advancement of Artificial Inte	elligence (AAAI) AI/ML	

_	Senior AC: Empirical Methods in Natural Language Proc (EMNLP)				
_	AE: Transactions on Machine Learning Research (TMLR)				
_	Senior AE: ACL Rolling Review (ARR)				
_	Neural Information Processing Systems (NeurIPS)				
2021	International Conference on Learning Representations (ICLR)				
_	Associati	on for Computational Linguistics (ACL)	NLP		
_	Empirica	l Methods in Natural Language Proc (EMNLP)	NLP		
_	Neural In	nformation Processing Systems (NeurIPS)	AI/ML		
_	ACL Roll	ing Review (ARR)	NLP		
2020	Associati	on for Computational Linguistics (ACL)	NLP		
_	Neural In	nformation Processing Systems (NeurIPS)	AI/ML		
_	Asia-Pac	ific chapter of the Association for Computational Linguistics (AACL)	NLP		
2019	Associati	on for Computational Linguistics (ACL)	NLP		
2018	Internation	onal Conference on Computational Linguistics	NLP		
2016	Conferen	ce on Lexical and Computational Semantics (*SEM)	NLP		
	Review	er			
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		
		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		9 – 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 20	019,2023, 2024		
	IJRR	International Journal of Robotics Research	2017		
	IROS	IEEE/RSJ International Conference on Intelligent Robots and Systems	2019,2023		
	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		
		Neural Information Processing Systems	2018 – 2019		
CV	CVPR	Computer Vision and Pattern Recognition	2020, 2023		
			•		

Organization (Workshops and Conference)

- 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 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 AI 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
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- 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