Yonatan Bisk

Assistant Professor of Computer Science

GHC 6703
✉ *ybisk@cs.cmu.edu*
he/him

Positions

2020 –	**Assistant Professor** *Carnegie Mellon University*	
	Language Technologies Institute	
	Robotics Institute (courtesy)	
2022 –	**Visiting Professor** *Meta Fundamental AI 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

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*		LTI 2022 –

Professional Masters Students

MRSD	**Assistive Robotics for Eldercare (*co-Z Erickson)**				2023
	Abhinav Gupta	he/him	Atharva Pusalkar	he/him	
	Praveen Venkatesh	he/him	Shaolin Kataria	he/him	
	Shivam Tripathy	he/him			

Alumni, Interns, and Undergraduates

MLT	**Jimin Sun**	she/her	*Embodied Dialogue*		LTI	2022 – 2023
Ugrad	**Xiang Fan**		*Transformer Efficiency*	*(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 Autonomy (*co-Z Erickson)**					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 Interaction**					2022
	Adhokshaja Madhwaraj	he/him	Kushagra Mahajan	he/him		
	Sai Vishwas Padigi	he/him	Vineeth Reddy	he/him		
	Malaika Vijay	she/her	Zheng (Jessica) Zhong	she/her		
MCDS	**Embodied Dialogue and ToM**					2022
	Xinyue Chen	she/her	Nikhil Gupta	he/him		
	Benny Jiang	he/him	Shubham Phal	he/him		
	Prasoon Varshney	he/him				
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 Reasoning*			LTI	2020 − 2022
MLT	**Josh Zhanson** he/him	*Embodied Visual Reps*			LTI	2020 − 2022
MS	**Xiaoyu (Erin) Zhang** she/her	*Collaborative Robots*	*(co-O Kroemer)*		5th	2021 − 2022
Ugrad	**Feiyu (Gavin) Zhu**	*Video Summarization*	*(co-C Paxton)*			2021
Intern	**Melanie Sclar**	*Symmetric Theory-of-Mind*	*(co-G Neubig)*			2021
Intern	**Blessing Bassey**	*TextVQA*				2021

Journal Publications

1. **The Return of Lexical Dependencies: Neural Lexicalized PCFGs** — 2020
Hao Zhu, <u>Yonatan Bisk</u>, Graham Neubig
Transactions of the Association for Computational Linguistics

2. **An HDP Model for Inducing Combinatory Categorial Grammars** — 2013
<u>Yonatan Bisk</u>, Julia Hockenmaier
Transactions of the Association for Computational Linguistics

Conference Publications

3. **Spatial-Language Attention Policies for Efficient Robot Learning** — 2023
Priyam Parashar, Vidhi Jain, Xiaohan Zhang, Jay Vakil, Sam Powers, <u>Yonatan Bisk</u>, Chris Paxton
Conference on Robot Learning

4. **HomeRobot: Open-Vocabulary Mobile Manipulation** — 2023
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, <u>Yonatan Bisk</u>, Chris Paxton
Conference on Robot Learning

5. **HomeRobot Open Vocab Mobile Manipulation Challenge** — 2023
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, <u>Yonatan Bisk</u>, Chris Paxton
Thirty-seventh Conference on Neural Information Processing Systems: Competition Track

6. **EXCALIBUR: Encouraging and Evaluating Embodied Exploration** — 2023
Hao Zhu, Raghav Kapoor, So Yeon Min, Winson Han, Jiatai Li, Kaiwen Geng, Graham Neubig, <u>Yonatan Bisk</u>, Aniruddha Kembhavi, Luca Weihs
Conference on Computer Vision and Pattern Recognition

7. **Computational Language Acquisition with Theory of Mind** — 2023
Andy Liu, Hao Zhu, Emmy Liu, <u>Yonatan Bisk</u>, Graham Neubig
The Eleventh International Conference on Learning Representations

8. **Self-Supervised Object Goal Navigation with In-Situ Finetuning** 2023
    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

9. **Don't Copy the Teacher: Data and Model Challenges in Embodied Dialogue** 2022
    So Yeon Min, Hao Zhu, Ruslan Salakhutdinov, Yonatan Bisk
    Conference on Empirical Methods in Natural Language Processing

10. **EvEntS ReaLM: Event Reasoning of Entity States via Language Models** 2022
    Evangelia Spiliopoulou, Artidoro Pagnoni, Yonatan Bisk, Eduard Hovy
    Conference on Empirical Methods in Natural Language Processing

11. **On Advances in Text Generation from Images Beyond Captioning: A Case Study** 2022
    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

12. **Transformers are Adaptable Task Planners** 2022
    Vidhi Jain, Yixin Lin, Eric Undersander, Yonatan Bisk, Akshara Rai
    Conference on Robot Learning

13. **Symmetric Machine Theory of Mind** 2022
    Melanie Sclar, Graham Neubig, Yonatan Bisk
    39th International Conference on Machine Learning

14. **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,

15. **Simulated Language Learning from Communicative Goals and Linguistic Input** 2022
    Hao Zhu, Yonatan Bisk, Graham Neubig
    Annual Meeting of the Cognitive Science Society (Oral)

16. **HEAR 2021: Holistic Evaluation of Audio Representations** 2022
    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

17. **KAT: A Knowledge Augmented Transformer for Vision-and-Language** 2022
    Liangke Gui, Borui Wang, Qiuyuan Huang, Alex Hauptmann, Yonatan Bisk, Jianfeng Gao
    Annual Conference of the North American Chapter of the Association for Computational
    Linguistics (Oral)

18. **FILM: Following Instructions in Language with Modular Methods** 2022
    So Yeon Min, Devendra Singh Chaplot, Pradeep Ravikumar, Yonatan Bisk, Ruslan
    Salakhutdinov
    The Tenth International Conference on Learning Representations

19. **WebQA: Multihop and Multimodal QA** 2022
    Yingshan Chang, Mridu Narang, Hisami Suzuki, Guihong Cao, Jianfeng Gao, Yonatan Bisk
    Conference on Computer Vision and Pattern Recognition (Oral)

20. **Dependency Induction Through the Lens of Visual Perception** 2021
    Ruisi Su, Shruti Rijhwani, Hao Zhu, Junxian He, Xinyu Wang, Yonatan Bisk, Graham Neubig
    The SIGNLL Conference on Computational Natural Language Learning

21. **Language Grounding with 3D Objects** 2021
    Jesse Thomason, Mohit Shridhar, Yonatan Bisk, Chris Paxton, Luke Zettlemoyer
    Conference on Robot Learning

22. **TACo: Token-aware Cascade Contrastive Learning for Video-Text Alignment** 2021
    Jianwei Yang, Yonatan Bisk, Jianfeng Gao
    International Conference on Computer Vision

23. **Few-shot Language Coordination by Modeling Theory of Mind** 2021
    Hao Zhu, Graham Neubig, Yonatan Bisk
    The Thirty-eighth International Conference on Machine Learning

24. **Grounding 'Grounding' in NLP** 2021
    Khyathi Raghavi Chandu, Yonatan Bisk, Alan W Black
    Findings of The 2021 Conference of the Association for Computational Linguistics

25. **An Empirical Study on the Generalization Power of Neural Representations Learned via Visual Guessing Games** 2021
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 Linguistics (Oral)

26. **Knowledge-driven Data Construction for Zero-shot Evaluation in Commonsense Question Answering** 2021
Kaixin Ma, Filip Ilievski, Jonathan Francis, Yonatan Bisk, Eric Nyberg, Alessandro Oltramari
35th AAAI Conference on Artificial Intelligence

27. **ALFWorld: Aligning Text and Embodied Environments for Interactive Learning** 2021
Mohit Shridhar, Xingdi Yuan, Marc-Alexandre Côté, Yonatan Bisk, Adam Trischler, Matthew Hausknecht
International Conference on Learning Representations

28. **Imagining Grounded Conceptual Representations from Perceptual Information in Situated Guessing Games** 2020
Alessandro Suglia, Antonio Vergari, Ioannis Konstas, Yonatan Bisk, Emanuele Bastianelli, Andrea Vanzo, Oliver Lemon
The 28th International Conference on Computational Linguistics (Oral)

29. **Experience Grounds Language** 2020
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 Processing (EMNLP) (Oral)

30. **RMM: A Recursive Mental Model for Dialog Navigation** 2020
Homero Roman Roman, Yonatan Bisk, Jesse Thomason, Asli Celikyilmaz, Jianfeng Gao
Conference on Empirical Methods in Natural Language Processing: Findings

31. **ALFRED: A Benchmark for Interpreting Grounded Instructions for Everyday Tasks** 2020
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)

32. **PIQA: Reasoning about Physical Commonsense in Natural Language** 2020
Yonatan Bisk, Rowan Zellers, Ronan Le Bras, Jianfeng Gao, Yejin Choi
Thirty-Fourth AAAI Conference on Artificial Intelligence (Oral)

33. **Robust Navigation with Language Pretraining and Stochastic Sampling** 2019
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 Joint Conference on Natural Language Processing

34. **Defending Against Neural Fake News** 2019
Rowan Zellers, Ari Holtzman, Hannah Rashkin, Yonatan Bisk, Ali Farhadi, Franziska Roesner, Yejin Choi
Thirty-third Conference on Neural Information Processing Systems

35. **Improving Robot Success Detection using Static Object Data** 2019
Rosario Scalise, Jesse Thomason, Yonatan Bisk, Siddhartha Srinivasa
IEEE/RSJ International Conference on Intelligent Robots and Systems

36. **Early Fusion for Goal Directed Robotic Vision** 2019
Aaron Walsman, Yonatan Bisk, Saadia Gabriel, Dipendra Misra, Yoav Artzi, Yejin Choi, Dieter Fox
2019 IEEE/RSJ International Conference on Intelligent Robots and Systems

37. **HellaSwag: Can a Machine Really Finish Your Sentence?** 2019
Rowan Zellers, Ari Holtzman, Yonatan Bisk, Ali Farhadi, Yejin Choi
Association for Computational Linguistics

38. **From Recognition to Cognition: Visual Commonsense Reasoning** 2019
Rowan Zellers, Yonatan Bisk, Ali Farhadi, Yejin Choi
The IEEE Conference on Computer Vision and Pattern Recognition (CVPR) (Oral)

39. **Tactical Rewind: Self-Correction via Backtracking in Vision-and-Language Navigation** 2019
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 (CVPR) (Oral)

40. **Prospection: Interpretable Plans From Language By Predicting the Future** 2019
Chris Paxton, <u>Yonatan Bisk</u>, Jesse Thomason, Arunkumar Byravan, Dieter Fox
International Conference on Robotics and Automation (ICRA)

41. **Shifting the Baseline: Single Modality Performance on Visual Navigation & QA** 2019
Jesse Thomason, Daniel Gordon, <u>Yonatan Bisk</u>
Annual Conference of the North American Chapter of the Association for Computational Linguistics

42. **Benchmarking Hierarchical Script Knowledge** 2019
<u>Yonatan Bisk</u>, Jan Buys, Karl Pichotta, Yejin Choi
Annual Conference of the North American Chapter of the Association for Computational Linguistics (Oral)

43. **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 Society (Oral)

44. **SWAG: A Large-Scale Adversarial Dataset for Grounded Commonsense Inference** 2018
Rowan Zellers, <u>Yonatan Bisk</u>, Roy Schwartz, Yejin Choi
Conference on Empirical Methods in Natural Language Processing (EMNLP) (Oral)

45. **Synthetic and Natural Noise Both Break Neural Machine Translation** 2018
Yonatan Belinkov, <u>Yonatan Bisk</u>
6th International Conference on Learning Representations (Oral)

46. **Learning Interpretable Spatial Operations in a Rich 3D Blocks World** 2018
<u>Yonatan Bisk</u>, Kevin Shih, Yejin Choi, Daniel Marcu
Thirty-Second Conference on Artificial Intelligence (AAAI-18)

47. **Natural Language Inference from Multiple Premises** 2017
Alice Lai, <u>Yonatan Bisk</u>, Julia Hockenmaier
Eighth International Joint Conference on Natural Language Processing (Oral)

48. **Natural Language Communication with Robots** 2016
<u>Yonatan Bisk</u>, Deniz Yuret, Daniel Marcu
15th Annual Conference of the North American Chapter of the Association for Computational Linguistics (Oral)

49. **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)

50. **Evaluating Induced CCG Parsers on Grounded Semantic Parsing** 2016
<u>Yonatan Bisk</u>, Siva Reddy, John Blitzer, Julia Hockenmaier, Mark Steedman
2016 Conference on Empirical Methods in Natural Language Processing

51. **Probing the Linguistic Strengths and Limitations of Unsupervised Grammar Induction** 2015
<u>Yonatan Bisk</u>, 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)

52. **Labeled Grammar Induction with Minimal Supervision** 2015
<u>Yonatan Bisk</u>, 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)

53. **Simple Robust Grammar Induction with Combinatory Categorial Grammar** 2012
<u>Yonatan Bisk</u>, Julia Hockenmaier
Twenty-Sixth Conference on Artificial Intelligence (AAAI-12)

54. **Document-Topic Hierarchies from Document Graphs** 2012
Tim Weninger, <u>Yonatan Bisk</u>, Jiawei Han
21st ACM international conference on Information and knowledge management (CIKM 2012)

55. **Normal-form parsing for CCGs with generalized composition and type-raising**   2010
Julia Hockenmaier, <u>Yonatan Bisk</u>
23rd International Conference on Computational Linguistics (Coling 2010)

Workshop Publications

56. **MAEA: Multimodal Attribution for Embodied AI**   2022
Vidhi Jain, Jayant Sravan Tamarapalli, Sahiti Yerramilli, <u>Yonatan Bisk</u>
Progress and Challenges in Building Trustworthy Embodied AI at NeurIPS 2022

57. **Tackling AlfWorld with Action Attention and Common Sense from Language Models**   2022
Yue Wu, So Yeon Min, <u>Yonatan Bisk</u>, Ruslan Salakhutdinov, Shrimai Prabhumoye
Language and Reinforcement Learning Workshop at NeurIPS 2022

58. **Worst of Both Worlds: Biases Compound in Pre-trained Vision-and-Language Models**   2022
Tejas Srinivasan, <u>Yonatan Bisk</u>
4th Workshop on Gender Bias in Natural Language Processing

59. **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

60. **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

61. **Inducing Grammars with and for Neural Machine Translation**   2018
Ke Tran, <u>Yonatan Bisk</u>
2nd Workshop on Neural Machine Translation

62. **Bridging HMMs and RNNs through Architectural Transformations**   2018
Jan Buys, <u>Yonatan Bisk</u>, Yejin Choi
32nd Conference on Neural Information Processing Systems (NIPS 2018), IRASL workshop

63. **Towards a Dataset for Human Computer Communication via Grounded Language Acquisition**   2016
<u>Yonatan Bisk</u>, Daniel Marcu, William Wong
AAAI 2016 Workshop on Symbiotic Cognitive Systems

64. **Unsupervised Neural Hidden Markov Models**   2016
Ke Tran, <u>Yonatan Bisk</u>, Ashish Vaswani, Daniel Marcu, Kevin Knight
Workshop on Structured Prediction for NLP (Oral)

65. **Induction of Linguistic Structure with Combinatory Categorial Grammars**   2012
<u>Yonatan Bisk</u>, Julia Hockenmaier
NAACL HLT Workshop on Induction of Linguistic Structure

Tech Reports

66. **WebArena: A Realistic Web Environment for Building Autonomous Agents**   2023
Shuyan Zhou, Frank F. Xu, Hao Zhu, Xuhui Zhou, Robert Lo, Abishek Sridhar, Xianyi Cheng, <u>Yonatan Bisk</u>, Daniel Fried, Uri Alon, Graham Neubig
ArXiv

67. **SPAE: Semantic Pyramid AutoEncoder for Multimodal Generation with Frozen LLMs**   2023
Lijun Yu, Yong Cheng, Zhiruo Wang, Vivek Kumar, Wolfgang Macherey, Yanping Huang, David A. Ross, Irfan Essa, <u>Yonatan Bisk</u>, Ming-Hsuan Yang, Kevin Murphy, Alexander G. Hauptmann, Lu Jiang
ArXiv

68. **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
ArXiv

69. **Plan, Eliminate, and Track – Language Models are Good Teachers for Embodied Agents**   2023
Yue Wu, So Yeon Min, <u>Yonatan Bisk</u>, Ruslan Salakhutdinov, Amos Azaria, Yuanzhi Li, Tom Mitchell, Shrimai Prabhumoye
ArXiv

70. **The Framework Tax: Disparities Between Inference Efficiency in Research and Deployment**   2023
Jared Fernandez, Jacob Kahn, Clara Na, <u>Yonatan Bisk</u>, Emma Strubell
ArXiv

71. **Retrospectives on the Embodied AI Workshop**   2022
Matt Deitke, Dhruv Batra, <u>Yonatan Bisk</u>, Tommaso Campari, Angel X. Chang, Devendra Singh Chaplot, Changan Chen, Claudia Pérez D'Arpino, Kiana Ehsani, Ali Farhadi, Li Fei-Fei, Anthony Francis, Chuang Gan, Kristen Grauman, David Hall, Winson Han, Unnat Jain, Aniruddha Kembhavi, Jacob Krantz, Stefan Lee, Chengshu Li, Sagnik Majumder, Oleksandr Maksymets, Roberto Martín-Martín, Roozbeh Mottaghi, Sonia Raychaudhuri, Mike Roberts, Silvio Savarese, Manolis Savva, Mohit Shridhar, Niko Sünderhauf, Andrew Szot, Ben Talbot, Joshua B. Tenenbaum, Jesse Thomason, Alexander Toshev, Joanne Truong, Luca Weihs, Jiajun Wu
ArXiv

72. **Training Vision-Language Transformers from Captions**   2022
Liangke Gui, Qiuyuan Huang, Alex Hauptmann, <u>Yonatan Bisk</u>, Jianfeng Gao
ArXiv

73. **Multi-View Learning for Vision-and-Language Navigation**   2020
Qiaolin Xia, Xiujun Li, Chunyuan Li, <u>Yonatan Bisk</u>, Zhifang Sui, Jianfeng Gao, Yejin Choi, Noah A. Smith
ArXiv

74. **FIND: Identifying Functionally and Structurally Important Features in Protein Sequences with Deep Neural Networks**   2019
Ranjani Murali, James Hemp, Victoria Orphan, <u>Yonatan Bisk</u>
bioRxiv

75. **CHALET: Cornell House Agent Learning Environment**   2018
Claudia Yan, Dipendra Misra, Andrew Bennett, Aaron Walsman, <u>Yonatan Bisk</u>, Yoav Artzi
ArXiv Preprint 1801.07357

76. **Unsupervised Grammar Induction with Combinatory Categorial Grammars**   2015
<u>Yonatan Bisk</u>
University of Illinois at Urbana-Champaign

Thesis Committees

–	**PhD** *Lijun Yu*		Alex Hauptmann, CMU
–	**PhD** *Liangke Gui*		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, Brown
2022	**PhD** *Shikib Mehri*		Maxine Eskenazi , CMU
2022	**PhD** *Shruti Palaskar*		Alan Black and Florian Metze, CMU
2022	**PhD** *Evangelia Spiliopoulou*		Ed Hovy, CMU
2022	**PhD** *Dheeraj Rajagopal*		Ed Hovy, CMU
2022	**PhD** *Volkan Cirik*		Louis-Philippe Morency and Taylor Berg-Kirkpatrick, CMU
2022	**MLT** *Aishwarya Jadhav*		Katia Sycara, CMU
2021	**PhD** *Pengcheng Yin*		Graham Neubig, CMU
2020	**PhD** *Zihang Dai*		Yiming Yang, CMU
2021	**MLT** *Jing Wen*		Katerina Fragkiadaki, CMU

2021	**Qual** *Mohit Sharma*	Oliver Kroemer, CMU

Teaching

2023	**11-851 Talking to Robots**	# Students: , FA
	11-767 On-Device Machine Learning	*Co-Emma Strubell* # Students: , 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**,	2yrs
2019	**CrashCourse AI** Educational YouTube series targeted at high-school age viewers. Hosted by Jabril Ashe. Co-Written with Lana Yarosh and Tim Weninger,	*1yr*
2018	**ACM Council on Diversity & Inclusion** Investigating and initiating institutional change within ACM on behalf of underrepresented groups.,	*1yr*
–	**Grace Hopper PC member** Review submissions to AI Technical Track,	*1yr*
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 National Center for Women & Information Technology's Award for Aspirations in Computing which supports high-school girls interested in CS, UIUC, ISI	*6yrs*
–	**Tech Junket/Women in CS** Outreach for local Urbana-Champaign pre-college students, UIUC *2yrs*	
2008	**Freshman Research Mentor** Mentored students to perform research, UTexas	*1yr*
–	**First Bytes** Helped organize a summer camp for girls interested in CS, UTexas	
–	**Co-Founded Breakfast Bytes** Professor talks for pre-college students, UTexas	*1yr*
–	**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 (CVPR)**	*CV*
–	**International Conference on Learning Representations (ICLR)**	*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)**	*NLP*
–	**Ethics Co-Chair: Association for Computational Linguistics (ACL)**	*NLP*
–	**Empirical Methods in Natural Language Proc (EMNLP)**	*NLP*
2022	**International Conference on Learning Representations (ICLR)**	*AI/ML*
–	**Senior MR: Association for the Advancement of Artificial Intelligence (AAAI)**	*AI/ML*
–	**Senior AC: Empirical Methods in Natural Language Proc (EMNLP)**	*NLP*
–	**AE: Transactions on Machine Learning Research (TMLR)**	*AI/ML*
–	**Senior AE: ACL Rolling Review (ARR)**	*NLP*
–	**Neural Information Processing Systems (NeurIPS)**	*AI/ML*
2021	**International Conference on Learning Representations (ICLR)**	*AI/ML*

	–	**Association for Computational Linguistics (ACL)**	*NLP*
	–	**Empirical Methods in Natural Language Proc (EMNLP)**	*NLP*
	–	**Neural Information Processing Systems (NeurIPS)**	*AI/ML*
	–	**ACL Rolling Review (ARR)**	*NLP*
2020		**Association for Computational Linguistics (ACL)**	*NLP*
	–	**Neural Information Processing Systems (NeurIPS)**	*AI/ML*
	–	**Asia-Pacific chapter of the Association for Computational Linguistics (AACL)**	*NLP*
2019		**Association for Computational Linguistics (ACL)**	*NLP*
2018		**International Conference on Computational Linguistics**	*NLP*
2016		**Conference on Lexical and Computational Semantics (*SEM)**	*NLP*

Reviewer

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*
	HRI	Human Robot Interaction	*2020 – 2023*
	ICRA	International Conference on Robotics and Automation	*2019,2023*
	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*
	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 AI 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

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

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-AI 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 AI
Cornell Learning Machines seminar
Stanford NLP seminar
SRI Center for Vision Technology Lab Panel *Embodied AI*

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*