Yonatan Bisk

Assistant Professor of Computer Science

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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

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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 –
PhD	**Abitha Thankaraj**	she/her	*Language to Control*	*(co-A Kumar)*	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*	*she/her*		2024
MS	**Quanting Xie**	he/him	*LLMs for Robotics*	*he/him*	MechE	2023
MSAII	**Seed emergence**					2024
	Harini Subramanyan		Juanyun Mai	Ameya Morbale		
	Karthik Natarajan		Noel D Souza	Bohao Zhang		
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				
MLT	**Jimin Sun**	she/her	*Embodied Dialogue*		LTI	2022 – 2023

	Name		Topic	Advisor		Year
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**

──── **Conference Publications**

──── **Workshop Publications**

──── **Tech Reports**

──── **Thesis Committees**

–	**PhD** *Gabe Sarch*		Katerina Fragkiadaki and Mike Tarr, CMU
–	**PhD** *Liangke Gui*		Alex Hauptmann, CMU
–	**PhD** *Jielin Qiu*		Lei Li & Christos Faloutsos, CMU
–	**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, 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

2024	**11-777 MultiModal Machine Learning**	*Co-Daniel Fried* # Students: 135, SP
2023	**11-851 Talking to Robots**	# Students: 16, FA
	11-767 On-Device Machine Learning	*Co-Emma Strubell* # Students: 69, FA
	11-777 MultiModal Machine Learning	*Co-Daniel Fried* # Students: 107, SP
2022	**11-767 On-Device Machine Learning**	*Co-Emma Strubell* # Students: 42, FA
	11-777 MultiModal Machine Learning	# Students: 94, SP
2021	**11-767 On-Device Machine Learning**	*Co-Emma Strubell* # Students: 31, FA
	11-777 MultiModal Machine Learning	# Students: 42, SP

Diversity and Inclusion

2022	**NAACL 2022 DEI Co-Chair**	
2021	**Restructuring of LTI PhD Admissions**,	*2yr*
2020	**LTI DEI Committee**,	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*
–	**European Chapter of the Association for Computational Linguistics (EACL)**	*NLP*
–	**Senior AE: ACL Rolling Review (ARR)**	*NLP*
–	**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)**	*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, 2024*
	HRI	Human Robot Interaction	*2020 − 2024*
	ICRA	International Conference on Robotics and Automation	*2019,2023, 2024*
	IJRR	International Journal of Robotics Research	*2017*

	IROS	IEEE/RSJ International Conference on Intelligent Robots and 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

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

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*