

Sasha Sax

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🌐 alexsax.github.io

Education	Doctor of Philosophy; Electrical Engineering and Computer Science University of California, Berkeley; Berkeley, CA	2022 (expected) Advisor: Jitendra Malik
	Masters of Science with Distinction in Research; Computer Science Stanford University; Stanford, CA	2018 Advisor: Silvio Savarese
	Bachelor of Science; Mathematics Stanford University; Stanford, CA	2018

Recent Experience	Facebook AI Research, Research Intern; Menlo Park, CA Improved perception for visuomotor policies by injecting computational visual biases (Mid-Level Representations).	2018-2019
	Stanford University, Research Assistant; Stanford, CA Developed methods for computing similarity between tasks and then using this similarity to develop efficient transfer curricula (Taskonomy). Also, created perceptually realistic environments for training embodied agents (Gibson).	2017-2018

Awards	Best Paper Award, CVPR 2018 Taskonomy: Disentangling Task Transfer Learning	2018
	NVIDIA Pioneering Research Award Embodied Real-World Active Perception	2018
	Stanford University Distinction in Research Computational Evidence for Structure in the Space of Tasks	2018
	Winner of CVPR 2019 Habitat Embodied Agents Challenge Mid-Level Visual Representations Improve Generalization and Sample Complexity	2019

Teaching	CS 331B: Representation Learning (TA)	2018
	CS 103: Mathematical Foundations of Computer Science (TA)	2015

Papers	[4] <i>Mid-Level Visual Representations Improve Generalization and Sample Efficiency for Learning Visuomotor Policies</i> Alexander Sax, Amir Zamir, Bradley Emi, Leonidas Guibas, Silvio Savarese, Jitendra Malik. <i>In submission</i> .	
	[3] <i>Taskonomy: Disentangling Task Transfer Learning</i> Amir Zamir, Alexander Sax*, William B. Shen*, Leonidas Guibas, Jitendra Malik, Silvio Savarese. <i>CVPR</i> , 2018. (Best Paper) (Oral)	
	[2] <i>Embodied Real-World Active Perception</i> Fei Xia*, Zhiyang He*, Amir Zamir*, Alexander Sax, Silvio Savarese. <i>CVPR</i> , 2018. (Spotlight)	
	[1] <i>Joint 2D-3D-Semantic Data for Indoor Scene Understanding</i> Iro Armeni*, Alexander Sax*, Amir Zamir*, Silvio Savarese. <i>Arxiv (preprint)</i> , 2016.	

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Talks Mid-Level Visual Representations, CVPR19 Habitat Workshop, Long Beach, CA Jun. 2019
Visual Biases in Embodied Agents, Facebook AI Research, Menlo Park, CA Apr. 2019

Volunteering **BAIR Undergraduate Mentoring:** Graduate Mentor 2019-Present
PyTorch: Developer 2017-Present
3DV Conference: Student Organizer 2016
Stanford Class of 2016: Junior Class President 2014-2015
East Palo Alto Tutoring and Tennis: Tutor 2013-2014
Business Association of Stanford Entrepreneurial Students: social good subgroup 2014

Older Experience **Microsoft Corporation**, Mountain View, CA Software Engineering Intern, 2016
Improved response time in Powerpoint Designer via better parallelism.

Stanford University, Stanford, CA Research Assistant, 2015
Investigated square-finding algorithms to find faster ones—or else to show they don't exist. I found alternative algorithms similar to best-known speed. I also investigated alternative algorithms for replacement paths in the presence of edge failures. I was supervised by Dr. Virginia Williams.

RTI International, Washington, DC Software Engineering Intern, 2014
Created a statistical analysis package which assesses effectiveness of interventions in national educational systems in developing countries. The package was used by the governments of Kenya, Ghana, and Zambia. I also designed and implemented software development process that required coordination between multiple teams, and drove this change through institutional resistance by gathering consensus.

Blackboard Inc., Washington, DC Software Engineering Intern, 2013
Created an early-warning analytics system to monitor traffic and system health in real-time. The system used NodeJS, MongoDB, and Hadoop.

RTI International, Washington, DC Software Engineering Intern, 2010-2012
Developed an automated survey-data cleaning process within STATA to reduce survey turnaround from 2 months to 1 week.