

SEUNGCHAN KIM
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<https://seungchan-kim.github.io>

Education	Carnegie Mellon University Ph.D. student at Robotics Institute Advisor: Sebastian Scherer Coursework: Advanced Intro to ML, Math Fundamentals for Robotics Pittsburgh, Pennsylvania Sep 2020 - Present
	Brown University M.S. in Computer Science B.S. in Applied Mathematics & Computer Science Advisors: George Konidaris & Michael Littman Coursework: Machine Learning, Computer Vision, Computational Prob & Stats, Learning & Sequential Decision Making, Numerical Optimization, Recent Applications of Prob & Stats, Reintegrating AI Providence, Rhode Island Sep 2019 - May 2020 Sep 2013 - May 2019
Research Experience	CMU Air Lab • Conducting research on active perception and robotic exploration. Oct 2020 - Present
	Brown University Intelligent Robot Lab • Devised a new deep RL algorithm using an alternative softmax operator, Mellowmax. • Proposed multi-step model-based RL algorithm to address compounding-error problem. Sep 2017 - May 2020
	Brown University Serre Lab • Investigated the memory-guided visual attention of children using computer vision approaches. Jan 2018 - May 2019
Preprints	[5] Discovering Developmental Mechanisms of Memory-Guided Attention using Computer Vision Dima Amso, Lakshmi Narashimhan Govindarajan, Pankaj Gupta, Heidi Baumgartner, Andrew Lynn, Kelley Gunther, Diego Placido, Tarun Sharma, Vijay Veerabadrhan, Kalpit Thakkar, Seungchan Kim , Thomas Serre. <i>Under Review</i> .
	[4] Combating the Compounding-Error Problem with a Multi-step Model Kavosh Asadi, Dipendra Misra, Seungchan Kim , Michael Littman. <i>arXiv preprint. CoRR abs/1905.13320 [cs.LG]</i>
Publications	[3] Adaptive Temperature Tuning for Mellowmax in Deep Reinforcement Learning Seungchan Kim , George Konidaris. <i>Neural Information Processing Systems (NeurIPS) 2019 Deep RL Workshop</i> .
	[2] DeepMellow: Removing the Need for a Target Network in Deep Q-Learning Seungchan Kim , Kavosh Asadi, Michael Littman, George Konidaris. <i>International Joint Conference on Artificial Intelligence (IJCAI) 2019</i> . <i>Multidisciplinary Conference on Reinforcement Learning and Decision Making (RLDM) 2019</i> .
	[1] Removing the Target Network from Deep Q-Networks with the Mellowmax Operator Seungchan Kim , Kavosh Asadi, Michael Littman, George Konidaris. <i>International Conference on Autonomous Agents and Multiagent Systems (AAMAS) 2019</i> .
Invited Talk	An Alternative Softmax Operator for Deep Reinforcement Learning Machine Intelligence Community (MIC) Conference, Boston, MA. Sep 2019
Teaching Assistantships	CS1430 Computer Vision , Brown CS Jan 2019 - May 2019
	CS0040 Intro to Scientific Computing and Problem Solving , Brown CS Jan 2015 - May 2015
	EN0040 Dynamics and Vibrations , Brown Engineering Jan 2015 - May 2015

Academic Activities**Reviewer**

- ICML 2020, AAAI 2021, ICLR 2021
- NeurIPS 2019 Workshops: ML & Physical Science, ML for Health
- NeurIPS 2020 Workshop: Challenges of Real-World RL

Mentor

- CMU AI Mentorship Program 2020
- CMU SCS Graduate Application Support Program 2020