

Keiland W. Cooper

EDUCATION	University of California, Irvine Ph.D., Neuroscience Advisor: Dr. Norbert Fortin	In progress
	Indiana University, Bloomington B.S., Cognitive Science, <i>with Honors</i> Computation specialization Certificate in Neuroscience; Minor in Psychology Advisors: Dr. Ehren Newman, Dr. Mike Jones	May 4th 2019

THESIS	<hr/>	
	[1] Cooper K. W. (2019) Cholinergic modulation may explain hippocampal encoding and retrieval mode switching. Indiana University, Bloomington Undergraduate Thesis.	
PREPRINTS	[2] Lomonaco V., Pellegrini L., Cossu A., Carta A., Graffieti G., ... Cooper K. W., ... Bacciu D., Maltoni D. (2021) Avalanche: an End-to-End Library for Continual Learning arXiv preprint 2104.00405 http://arxiv.org/abs/2104.00405	
	[3] Shahbaba, B., Li, L., Agostinelli, F., Saraf, M., Elias, G. A., Cooper, K. W., Baldi, P., Fortin, N. J. (2020). Hippocampal ensembles represent sequential relationships among discrete nonspatial events. (Under review)	
REFEREED PUBLICATIONS	[4] Gerkin, R. C., Ohla, K., Veldhuizen, M. G., Joseph, P. V., Kelly, C. E., Bakke, A. J., ... Cooper, K. W. ..., Baguma, M. (2020). Recent smell loss is the best predictor of COVID-19 among individuals with recent respiratory symptoms. <i>Chemical senses</i> , 46.	
	[5] Pierron, D., Pereda-Loth, V., Mantel, M., Moranges, M., Bignon, E., Alva, O., Cooper, K. W., ... Dinnella, C. (2020). Smell and taste changes are early indicators of the COVID-19 pandemic and political decision effectiveness. <i>Nature Communications</i> , 11(1), 1-8.	
	[6] Cooper, K. W., Brann, D.H., Farruggia, M.C., Bhutani, S., Pellegrino, R., Tsukahara, T., Weinreb, C., Joseph, P.V., Larson, E.D., Parma, V. and Albers, M.W., 2020. COVID-19 and the chemical senses: supporting players take center stage. <i>Neuron</i> . 107(2), 219-233	
	[7] Parma, V., Ohla, K., Veldhuizen, M. G., Niv, M. Y., Kelly, C. E., Bakke, A. J., Cooper K. W. ..., Hayes, J. E. (2020). More than smell- COVID-19 is associated with severe impairment of smell, taste, and chemesthesis. <i>Chemical Senses</i> , 45(7), 609-622.	
	[8] Pellegrino, R., Cooper, K. W., Di Pizio, A., Joseph, P. V., Bhutani, S., Parma, V. (2020). Coronaviruses and the chemical senses: past, present, and future. <i>Chemical senses</i> , 45(6), 415-422.	
	[9] Hernandez-Perez, J. J., Cooper, K. W., Newman, E. L. (2020). Medial entorhinal cortex activates in a traveling wave in the rat. <i>eLife</i> , 9	

- [10] Cooper, K. W. (2018). Can the Machine Understand: An Evidence Based Approach to the Chinese Room. *IU Journal of Undergraduate Research*, 4(1), 82-85

SELECTED ABSTRACTS AND TALKS

- [1] Cooper, K. W., Shahbaba, B., Li, L., Agostinelli, F., Saraf, M., Elias, G. A., Bornstein, A., Baldi, P., Fortin, N. J. (2021). Hippocampal theta oscillations support nonspatial sequence coding in hippocampal neurons. *Society for Neuroscience Global Connectome*
- [2] Cooper K. W. (2020) The neuroscience / AI feedback loop: Catastrophic Forgetting and Sequences. *UCI AGS Symposium*
- [3] Cooper K. W. (2020) Dual processes of hippocampal mode switching. *Neuro-match Conference*
- [4] Cooper K. W. (2020) Cholinergic abolition disrupts encoding and retrieval mode switching. *11th Annual Emerging Scientists Symposium*
- [5] Hernandez J, Cooper K. W., Newman E.L. (2018) Is theta a traveling wave in the medial entorhinal cortex? Program No. 330.10. *Society for Neuroscience*
- [6] Cooper K. W, Dachapally P.R, Jones M.N (2018) Consequences of Catastrophic Forgetting on Semantic Representations Learned by Deep Neural Embedding Models, *Midwest Cognitive Science Conference*
- [7] Cooper K. W. (2017) Bridging the Gap: Natural Computation and Neural Systems. *Indiana University Undergraduate Research Conference.*

TEACHING

Autonomous Robotics	Co-instructor	<i>Indiana University</i>	2019
Programming in Cognitive Sciences	Co-instructor	<i>Indiana University</i>	2018
Mind, Memory, and the Brain	Teaching Assistant	<i>UC Irvine</i>	2021
Neurobiology and Behavior Lab	Teaching Assistant	<i>UC Irvine</i>	2020
Brain and Behavior	Teaching Assistant	<i>UC Irvine</i>	2020
Cognitive Psychology	Teaching Assistant	<i>Indiana University</i>	2018
Introduction to Neuroscience	Teaching Assistant	<i>Indiana University</i>	2017

SELECTED OUTREACH + SERVICE

AskANeuroscientist	<i>Founder; K-12 class Q/A (reached >400 students)</i>
Hoosier STARS	<i>Co-founder; K-12 class neuro demos (reached >300 students)</i>
CNLM Ambassadors	<i>Co-chair; SoCal Learning and memory outreach</i>
UCI End Racism	<i>Working group contributor addressing systemic racism</i>
Quora Writer	<i>Answers to neuroscience and AI questions; 800k+ views</i>
Peer reviewer	<i>Physiological Reviews; CVPR</i>

NETWORKS

Cognitive Science Society	Psi Chi	ContinualAI (co-founder)
Society for Neuroscience	Sigma Xi	Carboncopies Foundation
Indiana Academy of Science	Sigma Alpha Pi	AI for People