Keiland W. **Cooper**

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Education

University of California, Irvine   In progress
Neuroscience, Ph.D.

Indiana University, Bloomington   May the Fourth, 2019
Cognitive Science B.S. *Honors*; Neuroscience Cert.
Thesis: Cholinergic modulation may explain hippocampal
encoding and retrieval mode switching

Publications

Published

Hernandez-Perez, J. J., Cooper, K. W., Newman, E. L. (2020). Medial entorhinal cortex activates in a traveling wave in the rat. eLife, 9

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

Abstracts

Hernández 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

Cooper K. W, Dachapally P.R, Jones M.N (2018) Consequences of Catastrophic Forgetting on Semantic Representations Learned by Deep Neural Embedding Models, Midwest CogSci

Cooper K. W., Hernández J, Newman E.L. (2018) Is theta in the Medial Entorhinal Cortex a Traveling Wave? Society for Neuroscience, Greater Indiana Chapter.

Cooper K. W. (2018) 3D Brain Model Extraction and Virtual Applications. (Panelist) Media School Graduate Association Conference.

Cooper K. W. (2018) FlapAI: Genetically Evolved Neural Networks. Midwest Undergraduate Cognitive Science Conference

Cooper K. W. (2017) Bridging the Gap: Natural Computation and Neural Systems. Indiana University Undergraduate Research Conference.

Cooper K. W., Osborn Z. (2016) Downstream Hippocampal Activity Prediction with Neural Networks. Midwest Undergraduate Cognitive Science Conference.

Awards

National Science Foundation, GRFP: *Honorable Mention*	2019
Cognitive Science Outstanding Research Award	2019
Ewing Prize	2018
Cognitive Science Outstanding Contribution Award	2018
Cognitive Science Research Project Award	2018
Cognitive Science Research Project Award	2017

Networks

Professional Societies

Indiana Academy of Science
Psi Chi
Sigma Xi
Sigma Alpha Pi

Other

Continual AI
Carboncopies, volunteer researcher
Student Organization for Cognitive Science, President
ADAPT Consulting, VP of Project Management

Conference Committee

Learning: Fast, Deep, and Shallow
Midwest Undergraduate Cognitive Science Conference

Pedagogy & Higher Education

Co-Instructor

Autonomous Robotics	Indiana University	Sp 2019
Programming in Cognitive and Info Sciences	Indiana University	Sp 2018

Teaching Assistant

Cognitive Psychology	Indiana University	Fa 2018
Introduction to Neuroscience	Indiana University	Fa 2017

Committee

Education Policy Committee	Indiana University
Faculty Council	Indiana University

Skillset

Laboratory	Stereotaxic Rodent Neurosurgery, Histological Procedures/Sacrificial Perfusions, Signal Analysis, fMRI Analysis (Brain Voyager/MATLAB), Electrophoresis, Centrifucation, Cell Culturing
Computational	Python, MATLAB, HTML5/CSS, R, UNIX/Bash, Git, Adobe Creative Suite
IT	APACHE/Ubuntu Server, Computer Construction, HPSS/Parallel Programming, SQL

Outreach & Service

Hoosier Stars (co-founding Director)
Brain Club @ The Boys and Girls Club
Quora Top Writer
IU Science Fest
Kirkwood Observatory Guide
Celebrate Science Indiana

Trainings, Workshops, etc.

Nonlinear Dynamics: Mathematical and Computational Approaches, Santa Fe Institute
Complexity Science Certificate, Santa Fe Institute
Science Communication workshop, Indiana University
Science Communication Workshop, Indiana University
High Performance Computing and Supercomputing Workshop, UITS
Aseptic Surgery: Proper Practice Training, Indiana University
Viral Handling; Animal Handling; Institutional Animal Care Training, Indiana University
FERPA; Data Protection and Privacy, Indiana University
IUNI Network Science Workshop, Indiana University
Neurosurgery Shadowing, Riley Hospital

Press

Ann Lewandowski (September 28th, 2018) IU undergraduates practice science outreach at Indiana high schools. IDS (Link)
Alexandra Moussa-Tooks (August 14, 2018) The art of dissemination part 3: Care to share? SciU (Link)
Liz Rosdeitcher (2017) Community Partnerships. Psyugrad (Link)

Erdös Number: 5

Paul Erdös → Ronald L. Graham → Feng Zhou → Michael J. Kahana → Ehren L. Newman