

Keiland W. Cooper

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Education

University of California, Irvine
Neuroscience, Ph.D.

In progress

Indiana University, Bloomington

May the Fourth, 2019

Cognitive Science B.S. *with 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: <i>Honorable Mention</i>	2019
Cognitive Science Outstanding Research Award, Indiana University	2019
Ewing Prize	2018
Cognitive Science Outstanding Contribution Award, Indiana University	2018
Cognitive Science Research Project Award, Indiana University	2018
Cognitive Science Research Project Award, Indiana University	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

Undergraduate Co-Instructor

Autonomous Robotics (CSCI-B355); Indiana University, Spring 2019

Programming in the Cognitive and Info Sciences (COGS-Q 260); Indiana University, Spring 2018

Undergraduate Teaching Assistant

Cognitive Psychology (PSY-P 355); Indiana University, Fall 2018

Introduction to Neuroscience (PSY-P 346), Indiana University, Fall 2017

Committee Seats

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, Centrifugation, 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](#))

Erdős Number: 5

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