

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. *Honors*; Neuroscience Cert.

Thesis: Cholinergic modulation may explain hippocampal encoding and retrieval mode switching

Publications

Published

Valentina Parma, Kathrin Ohla, Maria G Veldhuizen, Masha Y Niv, Christine E Kelly, Alyssa J Bakke, Keiland W Cooper, GCCR Consortium (2020). More than just smell- COVID-19 is associated with severe impairment of smell, taste, and chemesthesis. *Chemical Senses*

Robert Pellegrino, Keiland W Cooper, Antonella Di Pizio, Paule V Joseph, Surabhi Bhutani, Valentina Parma (2020). Corona viruses and the chemical senses: past, present, and future. *Chemical Senses*

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 / Talks

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	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 Perfusion, Signal Analysis, fMRI Analysis (Brain Voyager/MATLAB), Electrophoresis, Centrifugation, Cell Culturing

Computation

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; K-12 science outreach to IN schools*

Brain Club @ The Boys and Girls Club *Taught primary school aged students about the brain*

Quora Writer *500k views on mostly neuroscience and AI answers to user questions*

IU Science Fest *A booth where people held sheep brains*

Kirkwood Observatory Guide *Volunteer astronomical guide at the local observatory*

Celebrate Science Indiana *Large scale outreach event, ran an EEG and sheep brain booth*

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