# 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

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: 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 \_

$( \cap -1$	<i>Instructor</i>	

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 Anal-

ysis, fMRI Analysis (Brain Voyager/MATLAB), Electrophoresis, Centrifucation, Cell Culturing

Computation Python, MATLAB, HTML5/CSS, R, UNIX/Bash, Git, Adobe Creative Suite

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 o Ronald L. Graham o Feng Zhou o Michael J. Kahana o Ehren L. Newman