KEATON KRAIGER

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EDUCATION

PhD in Computer Science Engineering   Jan. 2021 - Present
Pennsylvania State University: University Park

BS in Computer Science   Sep. 2016 - June 2020
Portland State University
- Overall GPA: 3.80/4.00
- Honors (*Magna Cum Laude*)

RESEARCH INTERESTS

I am broadly interested in artificial intelligence and its applications in computer vision and reinforcement learning. My work has involved biologically-inspired models to perform object detection/recognition while capturing and maintaining object structure and spatial relations. Prospective future research areas include muli-modeal learning, novel view synthesis, scene understanding, multi-task learning, and capturing visual relationships in images and video..

RESEARCH EXPERIENCE

Research Assistant, Biologically-Inspired Computing Lab (BICL)   Dec. 2018 - Jan. 2020
Dr. Dan Hammerstrom, Portland State University
- Develop biologically-inspired algorithms to perform object detection
- Explore grid cell functionality in capturing object structure while maintaining position and scale invariance
- Process image datasets with grid cell model to aid in object detection and image classification
- Compare different image classifier performances, specifically convolutional neural networks and capsule networks when integrated with the grid cell model

Undergraduate Mentee, Undergraduate Research & Mentoring Program   Nov. 2018 - May 2019
Fariborz Maseeh College of Engineering and Computer Science, Portland State University
- Paired with faculty mentor to conduct funded research during the winter and spring term
- Attended program workshops on developing abstracts, research proposals, research questions, research methods, and means of communicating research findings
- Gained a foundation of computer science research by reviewing scholarly articles and relevant work being conducted

POSTER PRESENTATIONS

K. Kraiger & D. Hammerstrom. "The Applications of Grid Cells in Computer Vision," presented at Portland State University Student Research Symposium, Portland, Oregon, 2019

K. Kraiger & D. Hammerstrom. "The Applications of Grid Cells in Computer Vision," presented at Portland State University Undergraduate Research and Mentoring Program Research Presentation, Portland, Oregon, 2019

WORK EXPERIENCE

Technical Course Student Specialist (TCSS)   June 2019 - June 2020
Karla Fant, Portland State University
- Work with undergraduate computer science students during weekly homework recitation sessions on programming assignments and algorithm development
- Help facilitate Introduction to Computer Science weekly labs
- Assist instructor during end of the term proficiency demonstrations

Web development   Oct. 2018
Dr. Kurt Kraiger, Dr. Lisa Finkelstein, Dr. Lebena Varghese, Colorado State University
- Developed interactive online supplemental material for academic publication
- Kraiger, Kurt, Lisa M. Finkelstein, and Lebena S. Varghese. "Enacting Effective Mentoring Behaviors: Development and Initial Investigation of the Cuboid of Mentoring." *Journal of Business and Psychology* 34, no. 4 (2019): 403-424

Course Grader   Sep. 2017 - June 2020
Karla Fant, Portland State University
- Provide timely feedback and grades on students' programming and algorithm assignments

PROFESSIONAL AFFILIATIONS

Institute of Electrical and Electronics Engineers PSU Student Branch – IEEE (2019 – 2020)
Center for Brain-Inspired Computing - C-BRIC (2018 - 2020)

PROFESSIONAL REFERENCES

Karla Fant, MS
- Professor, Portland State University
- Department of Computer Science
- Karlaf@pdx.edu

Dan Hammerstrom, PhD
- Professor Emeritus, Portland State University
- Department of Electrical and Computer Engineering
- Dwh@pdx.edu

Christof Teuscher, PhD
- Professor, Portland State University
- Department of Electrical and Computer Engineering
- Teuscher@pdx.edu