

Towards

HUMAN -CENTERED AI

through

Interactive Data Visualization



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HUMAN-CENTERED AI_{through} Interactive Data Visualization

AI is difficult to understand for many people.

How can we make *AI more interpretable and accessible*?

We build *interactive data visualization* tools for people to more easily understand, build, and use AI systems.

GAN Lab

Collaboration with 

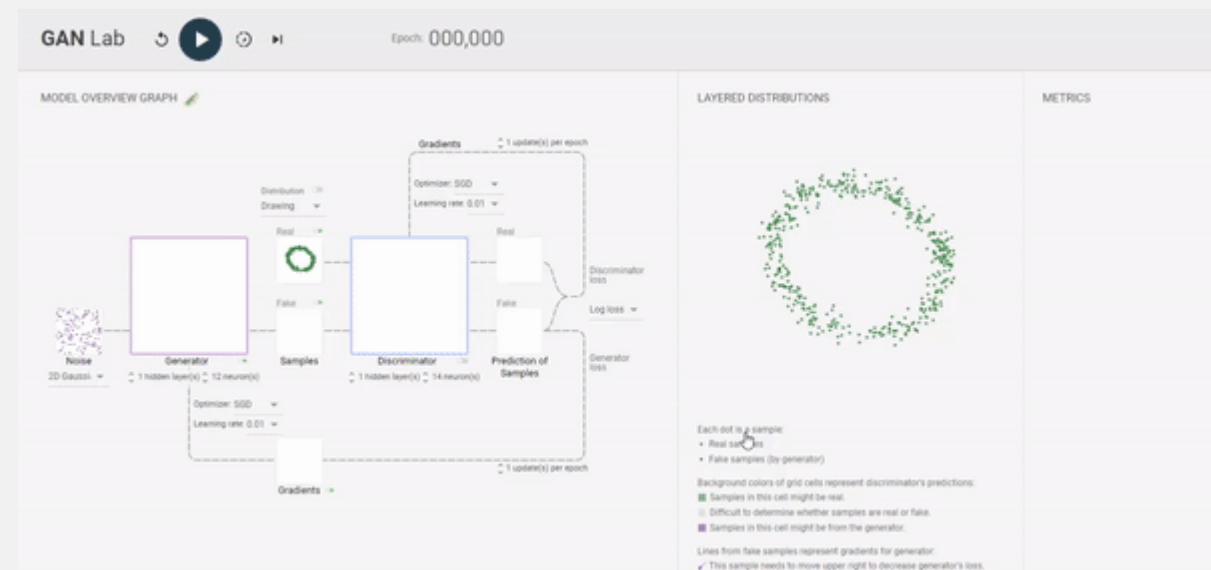
Interactive Visual Learning of
Deep Learning Models in Browser

Try out!

bit.ly/gan-lab

110K visitors from 170 countries

 1.9K Likes  800+ Retweets



HUMAN-CENTERED AI through Interactive Data Visualization

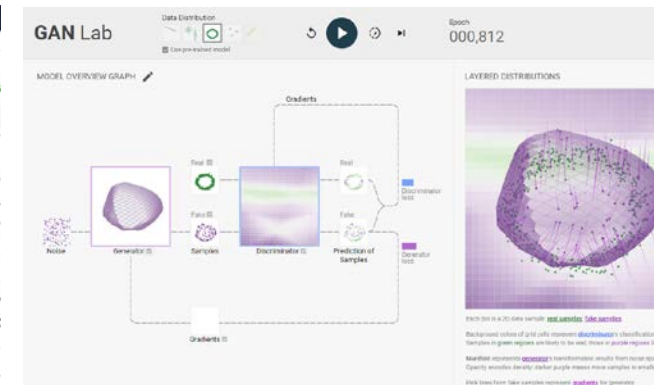
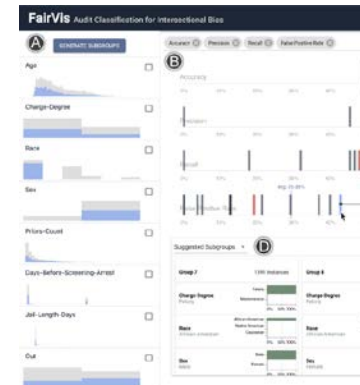
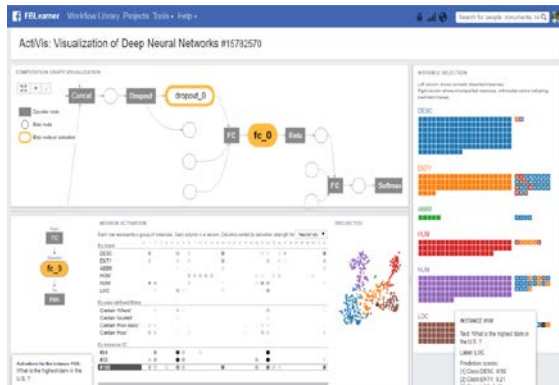
You should consider working with us if you answer “yes” to any of these:



Minsuk Kahng

School of EECS <https://minsuk.com>

- You like to design user interfaces;
- You are interested in thinking about human-side of AI;
- You would like to create JavaScript programs; or
- You want to help people who want to learn AI.



College of Engineering and HC Thesis Mixer

Teaching

- *Intro to Artificial Intelligence (CS 331)*
- *Machine Learning for Species Distribution Modeling (FW 599)*
- *Use and Abuse of Data: Critical Thinking in Science and Everyday Life (BDS 211)*

Research

My research is at the intersection of machine learning and ecology.

I am part of the computational sustainability community, trying to find ways that computer science can contribute to promoting the health of the Earth's ecosystems and bringing interesting new problems back to computer

Rebecca A. Hutchinson



School of EECS / Dept. of Fisheries, Wildlife, & Conservation Sciences

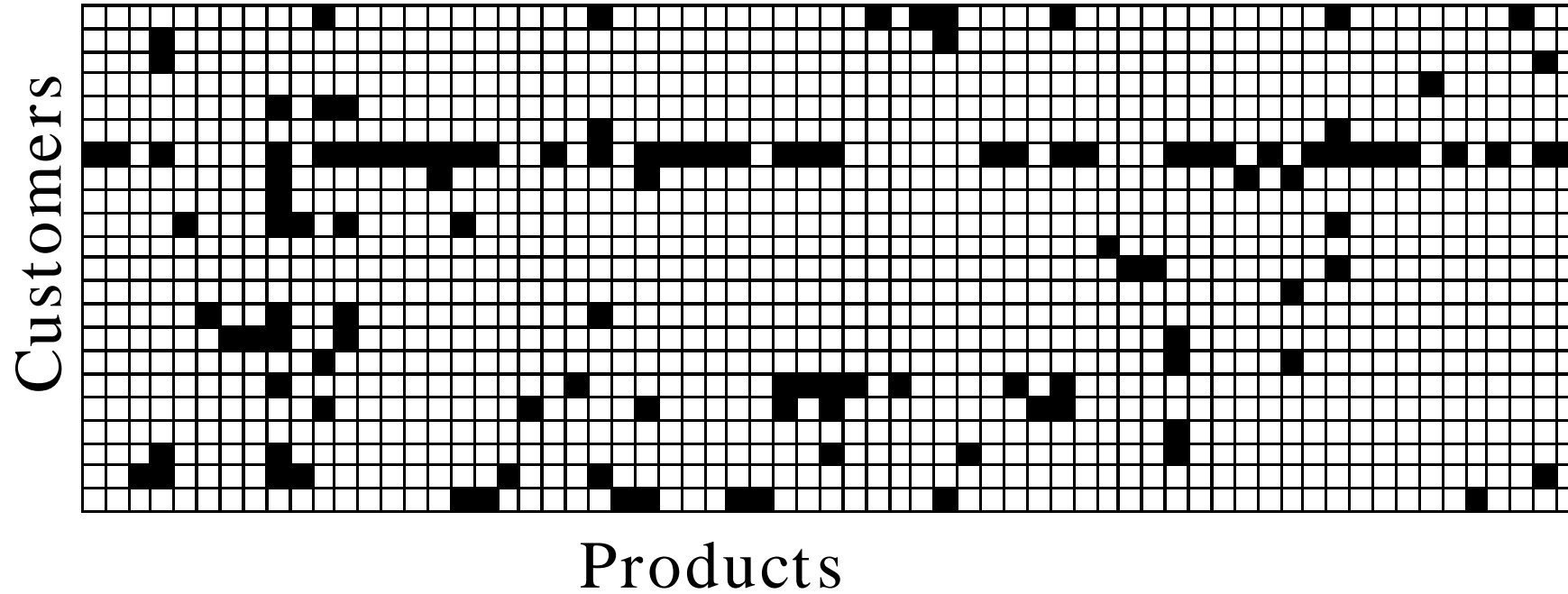
Kelley 2071

rah@oregonstate.edu

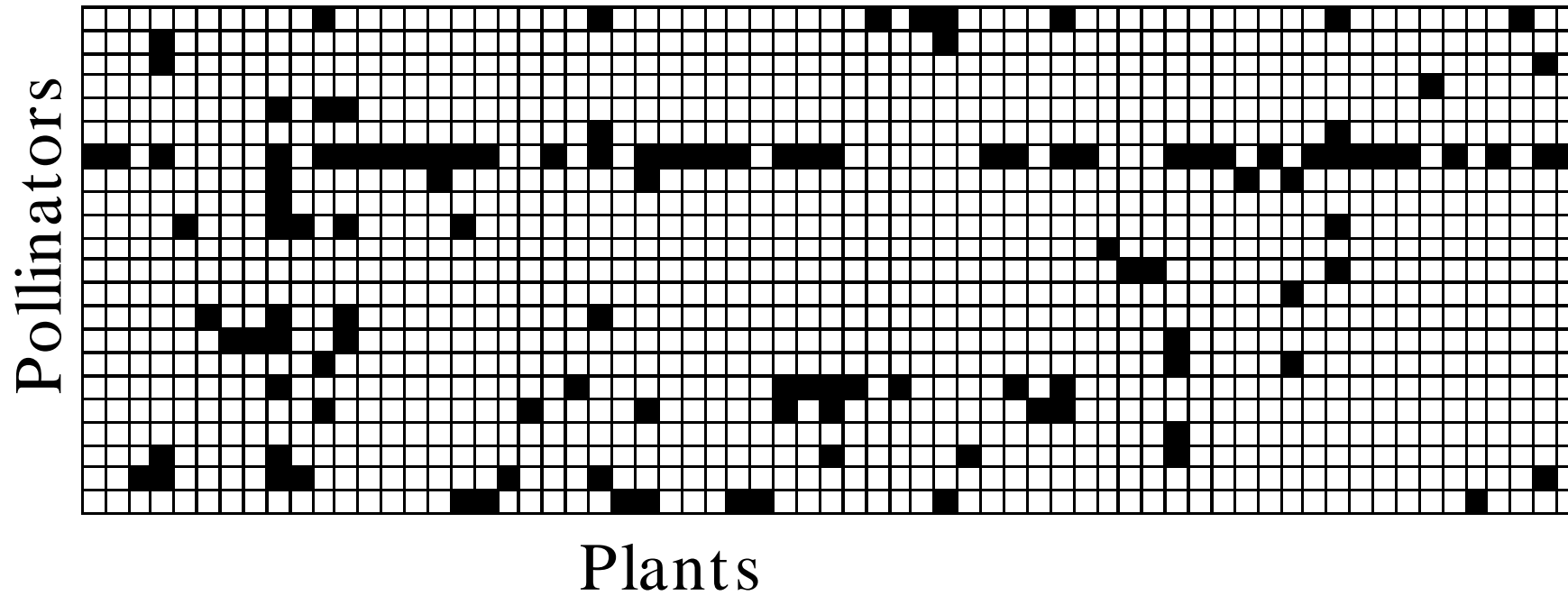
Thesis Topic Ideas/Opportunities

- *Methods for inferring species interaction networks from incomplete data*
- *Methods to predict species distributions from remotely sensed imagery*

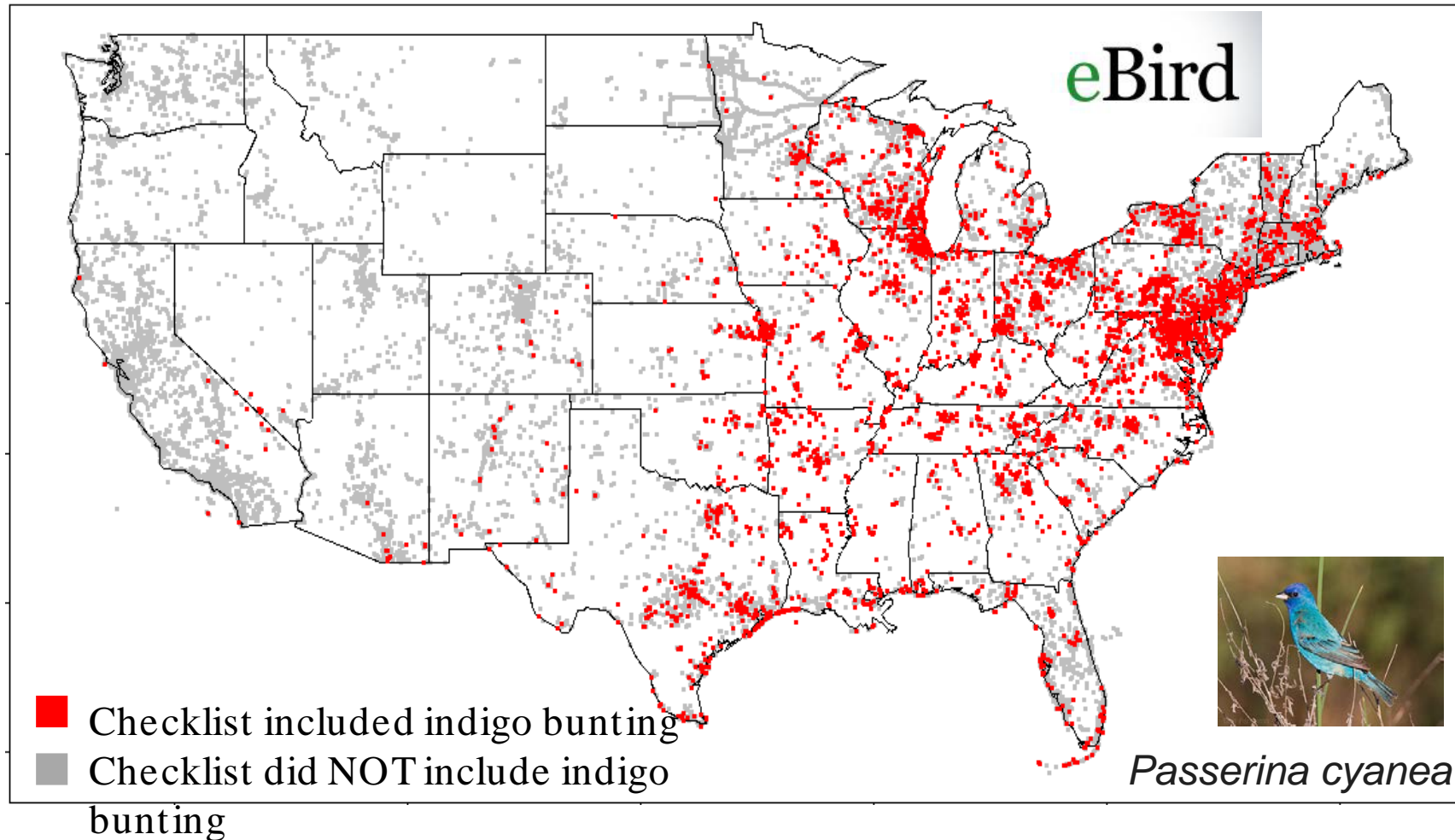
Link prediction ideas from recommender systems



Link prediction ideas from recommender systems

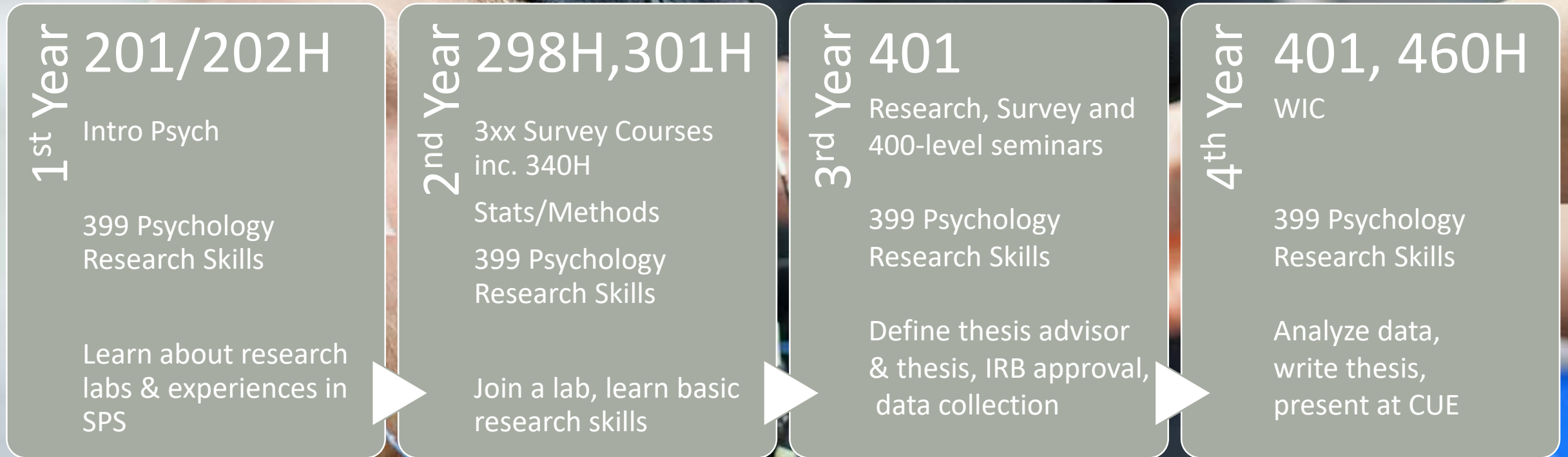


Citizen science: biodiversity surveys at unprecedented scales



School of Psychological Science

Typical Honors Pathway in Psychology



Oregon State
University

Research Opportunities in Psychology

Courses

Psychology of Trauma
Clinical Research Methods

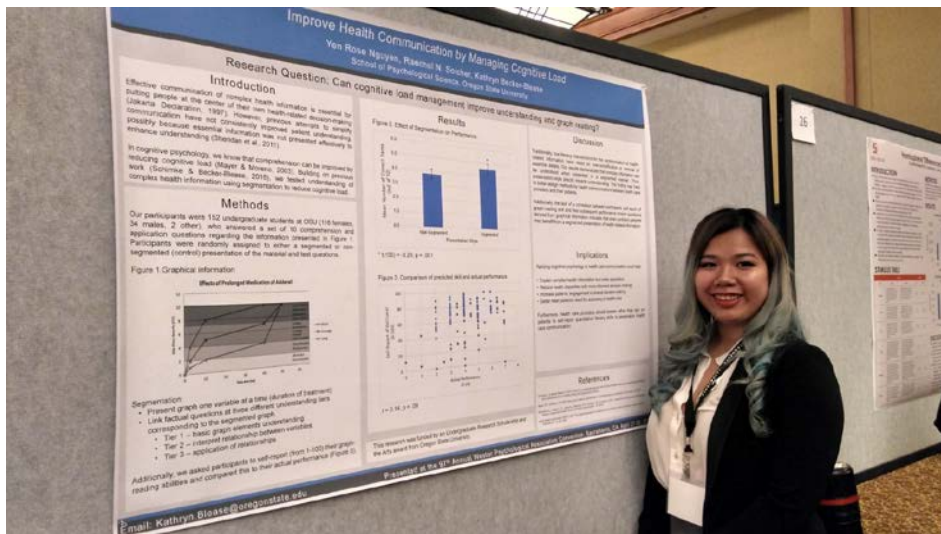
Dr. Kathy Becker-Blease

Human Development
Trauma
Science of Teaching and Learning



Kathryn.Blease@oregonstate.edu

<https://liberalarts.oregonstate.edu/users/kathryn-becker-blease>



How to Learn More/Get Involved

PSY 499 Psychology of Trauma – tentatively scheduled winter

Email to learn more about remote trauma-related journal club/lab meetings

Observe remote a lab meeting tomorrow Fri., May 22 at 11 am

Research Opportunities in Psychology

Courses

Abnormal Psychology
Psychotherapy
Clinical Research Methods (WIC)

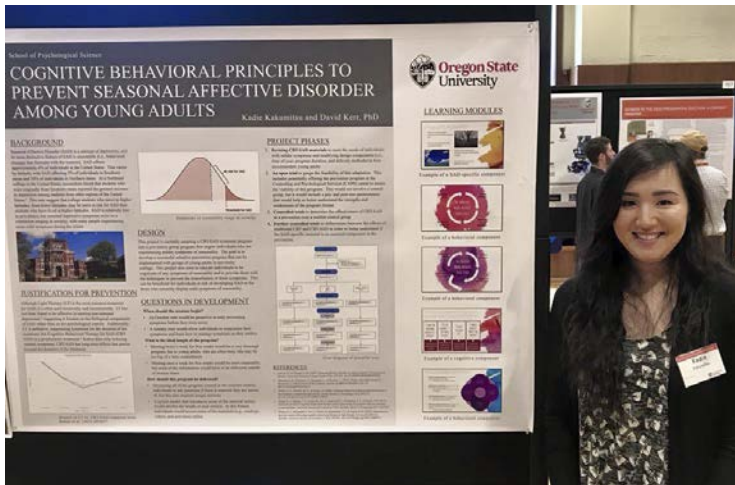
Dr. David Kerr

Depression & suicide risk
Substance use
Adolescents & young adults



David.Kerr@oregonstate.edu

<https://liberalarts.oregonstate.edu/users/david-kerr>



How to Learn More/Get Involved

Read journal abstracts by “DCR Kerr” on Google Scholar

Email to learn more about remote lab meetings

School of Psychological Science

NEED HELP FINDING LAB OR MENTOR?

EMAIL ME AT

KATHRYN.BLEASE@OREGONSTATE.EDU



Oregon State
University

Matthew Shuman

Title: Senior Instructor

Contact: shumanm@oregonstate.edu

Courses:

ECE 112	Introduction to ECE
ECE 271/272	Digital Logic Design
ECE 341/342	Junior Design

Project Based MS Degree

A new option for a **Masters in Computer Science** or **Masters in Electrical Engineering** is now available with a focus on design, systems, and projects. Graduates in this program focus efforts on creating real systems, developing leadership in team structures, learning the ins and outs of complex systems, and gaining industry exposure.

Two-Year Program: Students in this program commonly spend their first year gaining technical skills and preparing to lead their project. In the second year, students take the lead in project development using their own technical knowledge. This includes working collaboratively with senior and junior design teams. Projects can be student-developed or can be continuations of existing larger scale projects in automotive, robotics, aeronautics, instrumentation, or other fields.

Primary Activities

Faculty Advisor: OSU Robotics Club

[Mars Rover Project](#)

Communities of Practice: [Embedded Systems](#)

[Internet of Things](#)



Prof. Lizhong Chen

System Technology and Architecture Research (STAR) Lab

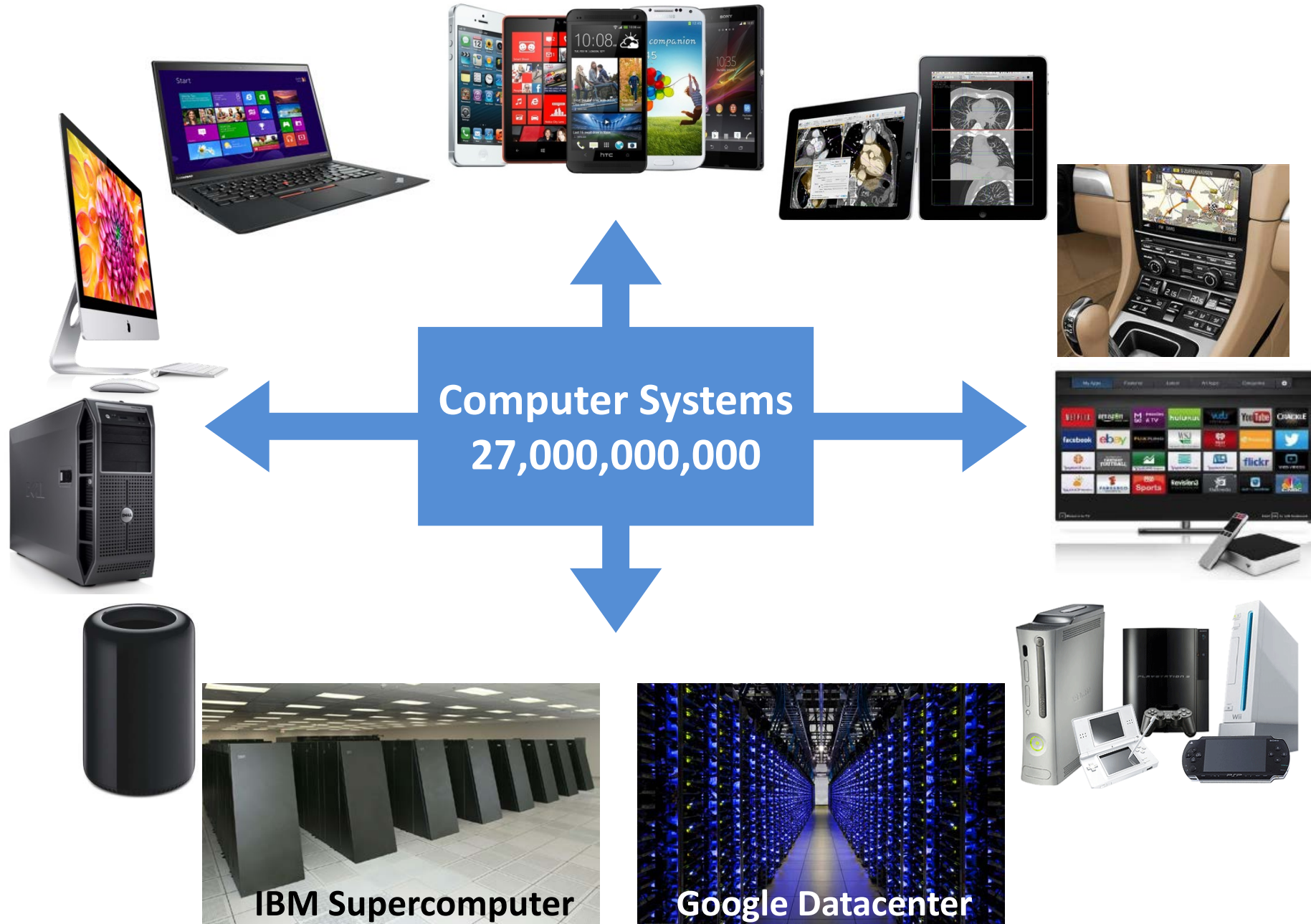
School of Electrical Engineering and Computer Science

Oregon State University

Office: KEC 3113, chenliz@oregonstate.edu

<http://web.engr.oregonstate.edu/~chenliz/index.html>





- **Research at STAR Lab**

- AI/ML for optimizing computer architecture
- Accelerators for AI and machine learning
- Energy efficiency of HPCs and data centers
- Many-core architecture for post-Moore era
- GPU architectures
- Mobile and wearable devices (VR/AR, etc.)



- **Open positions**

- Both CS and ECE students are welcome
- Encourage you to continue grad study at OSU
 - Continuity usually shortens length of study (esp. PhD)
 - Strong tie between STAR Lab and industry (project/intern/job)