

# ARTIFICIAL INTELLIGENCE WORKSHOP

OCTOBER 14, 2021

8:30 - 9:00AM

Welcome and intro

## Lightning Talks

9:00 - 9:10

Luke Sheneman  
*AI In Your Pocket? Examples of Current Machine Learning Projects Supported by UI Research Computing*

9:12 - 9:22

Frank Gao  
*A double autoencoder for recommender systems without using side information*

9:24 - 9:34

Lili Cai  
*Biomaterial deterioration and protection*

9:36 - 9:46

Bert Baumgaertner  
*On the Method of Reflective Equilibrium*

9:48 - 9:58

Min Xian (Zoom)  
*Computer-aided diagnosis (CAD) of breast cancer in the era of AI*

10:00 - 10:15AM

Morning break

10:15 - 11:00AM

**Activity: Using RCDS HPC GPU Resources for AI (Death by 1000 Acronyms)**

*Participants will learn how to use common frameworks such as Tensorflow and PyTorch on GPU accelerated RCDS systems by running example jobs.*

## Lightning Talks

11:00 - 11:10

Tao Xing  
*An interdisciplinary multiscale approach for understanding the mechanisms of lung respiration*

11:12 - 11:22

Liang Lu  
*Applications of textual analysis and computer vision in e-commerce and online review platforms*

11:24 - 11:34

Lyudmyla Barannyk  
*Phase change modeling with internal heat generation*

11:36 - 11:46

Marshall Ma  
*X-informatics: Bring data science down to earth in real-world applications*

### **Lightning Talks (cont.)**

- 11:48 - 11:58     Andy Kliskey  
*AI applications in NSF and Idaho EPSCoR programs*
- 12:00 - 12:10     Terry Soule  
*Evolutionary computation*
- 12:12 - 12:22     Audrey Fu  
*Autoencoders and high-dimensional biological data*

12:30 - 1:00PM     Catered lunch

1:00 - 2:00PM     **Keynote Speaker: Michael Radwin**  
*Practical AI for Fintech: expert systems, machine learning and design thinking*

2:00 - 2:10PM     Afternoon break

### **Lightning Talks**

- 2:10 - 2:20     Michael Overton  
*Data science literacy, AI, and the future of local governments*
- 2:22 - 2:32     Marek Borowiec  
*Understanding population histories with deep learning*
- 2:34 - 2:44     Jean-Marc Gauthier and Jason Starace  
*Framework for using computer vision and machine learning in virtual reality*
- 2:46 - 2:56     Shelley McGuire  
*Exploration of human milk as a biological system within an ecological context*
- 2:58 - 3:08     Hasan Jamil  
*Reasoning and knowledge representation*

3:10 - 4:10PM     **Activity: COLLABOPOCALYPSE**  
*Work with your group to brainstorm a problem that could be addressed using an AI approach; ideally, a problem driven by the research domains represented in your group. Consider why this problem is significant, what approaches you would take to solve it, and how you would go about it (in terms of needed infrastructure and collaborators). Groups will then give 60-second pitches on their ideas.*

4:10 - 4:30PM     Wrap up