ARVO EDUCATION COURSE

Saturday, May 3, 2025
8am – 5pm, MST
Salt Palace Convention Center
Salt Lake City, Utah

Artificial Intelligence for ophthalmic research

8am – 5pm

Organizers

Michael F. Chiang, MD, FARVO; Michelle Hribar, MS, PhD; Aaron Lee, MD, MSCI; Jayashree Kalpathy-Cramer, PhD; and SriniVas R. Sadda, MD, FARVO

Session 4: Training a deep learning model – Hands-on lab

3:30 – 5pm

Target audience

This is an advanced-level session. Attendees should be seeking to create AI models themselves and be familiar with basic programming skills.

Description

This session will demonstrate how to use deep learning techniques to interrogate the AI-READI dataset. Participants will be able to practice using these techniques through four hands-on exercises.

Equipment requirements

A Google account and laptop are required to participate in the hands-on exercises. Related files will be sent via email at least three business days prior to the session.

Learning objectives

Attendees will leave this session with the ability to:

- Use deep learning techniques to interrogate the AI-READI dataset

Session agenda

Time	Topic	Presenter
3:30 – 3:35pm	Welcome and instructions	**Session moderator and presenter** Aaron Y. Lee, MD, MSCI Professor, C. Dan and Irene Hunter Endowed Professor University of Washington Seattle, Washington **Presenter** Ravi K. Madduri, MS Senior Computer Scientist Argonne National Laboratory Lemont, Illinois
3:35 – 3:55pm	Exercise 1: Exploring datasets, preparing datasets for training	
3:55 – 4:15pm	Exercise 2: Training a DL classifier	

4:15 – 4:35pm	Exercise 3: Training remotely	
4:35 – 4:45 pm	Exercise 4: Federated learning	
4:45 – 5pm	Wrap-up and next steps	