THE OHIO STATE UNIVERSITY
COLLEGE OF ENGINEERING

Human-Centered Machine Learning

ISE 5745

Credit Hours:
3.00 - 3.00

Course Levels:
Undergraduate (1000-5000 level)
Graduate

Course Components:
Lecture

Course Description:
Design and analysis of ML for human users. Topics include: introductory machine learning; interactive ML; ethics in AI; human-agent interaction; human-subject research. Students not familiar with Python should enroll in an introductory python course as a pre- or co-requisite.

Prerequisites and Co-requisites:
Prereq: Sr or Grad standing in Engineering.

Course Goals / Objectives:
- To be introduced to the basic supervised, unsupervised, and reinforcement learning algorithms.
- To understand what algorithms/methods can be used in human-machine systems.
- To understand how to design and verify human-machine systems for the human experience.
- To interpret ML from a human interaction / ethics perspective.
- To design and modify ML algorithms for a better human interaction.

Course Topics:
- Ethical Theory, Rhetoric, Human Factors, Interaction Methods
- ML: supervised, reinforcement, unsupervised, deep, and XAI
- Ethics in AI, Emotion, Trust, Human-subject research, Application

Designation:
Elective