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UF/IFAS AI AND DATA SCIENCE SEMINAR SERIES

WEDNESDAY, DECEMBER 4, 2024
12:00P.M. - 01:00P.M.

ZOOM:
https://go.ufl.edu/5g8w7ep

The Strength to Say "I Don't Know": expanding neural networks to address out of distribution samples and ambiguous inputs

Machine Learning methods, and specifically neural networks, have shown impressive capabilities on a wide range of application areas. However, these models are often brittle when seeing unexpected or novel data that differs in significant or meaningful ways from the data that was used to train them. Often, this is overcome with ever-increasing training data volumes. However, there are many applications that are inherently data limited or scenarios in which systems encounter ambiguous or out-of-distribution samples. In these cases, the ability for a model to be able to produce the output "I Don't Know, Never seen anything like this before" can be critical. In this talk, I will discuss methods that my group has developed to flag out-of-distribution and address ambiguous inputs in test data.
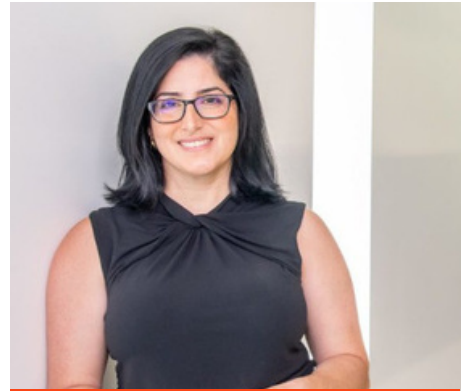
DR. ALINA ZARE

BIO

Alina Zare teaches and conducts research in machine learning and artificial intelligence as a Professor in the Electrical and Computer Engineering Department at the University of Florida. She also serves as the Director of the Artificial Intelligence and Informatics Institute at the University of Florida. Dr. Zare's research has focused primarily on developing new machine learning algorithms to automatically understand and process data and imagery. Her research work has included automated plant root phenotyping, sub-pixel hyperspectral image analysis, target detection and underwater scene understanding using synthetic aperture sonar, LIDAR data analysis, Ground Penetrating Radar analysis, and buried landmine and explosive hazard detection.