Label Your Data with This One Weird Trick: Methods for Addressing the Digital Data Labeling Bottleneck

Supervised machine learning algorithms require labeled data. Current methods with an ever increasing number of parameters, have even greater need for large (or, even, huge) labeled data sets. Obtaining accurate training label information is often time consuming, expensive, and, in some cases, infeasible. Furthermore, human annotators may be inconsistent when labeling a data set, providing inherently imprecise label information. In this talk, the speaker will discuss scalable approaches (so, despite the title, more than one "trick") for addressing labeling needs and her team's approaches to characterizing plant phenotypes and understanding plant roots using methods that focus on alleviating the labor intensive, expensive and time consuming aspects of algorithm training and testing.

Alina Zare, Ph.D.

Professor
Dept of Electrical and Computer Engineering
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Date: Monday, Oct 25, 2021
Time: 1:50 – 2:40 p.m. US Central Time
Zoom Meeting ID: 998 4499 3279
Passcode: 724615
Faculty host: Seith Murray, SCSC

Biography

Dr. Alina Zare teaches and conducts research in the area of pattern recognition and machine learning in the Electrical and Computer Engineering Department at the University of Florida. Dr. Zare's research has focused primarily on developing machine learning and pattern recognition algorithms to autonomously understand and process non-visual imagery for remote sensing. Her research work has included automated plant root phenotyping using visual and X-ray imagery, 3D reconstruction and analysis of X-ray micro-CT imagery, 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. Dr. Zare earned her Ph.D. in December 2008 from the University of Florida. Prior to joining the faculty at the University of Florida in 2016, Dr. Zare was faculty at the University of Missouri.

You can also click this link to join the seminar https://tamu.zoom.us/j/99844993279?pwd=TkJodWFVRURyMmkwakI4SWZGeVJTQT09

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