UNIVERSITY OF SOUTH FLORIDA

Major Research Area Paper Presentation

Task-based Classification of Reflective Thinking using Mixture of Classifiers
by
Saandeep Aathreya

For the Ph.D. degree in Computer Science and Engineering

In this talk, I will discuss our paper that studies the problem of Reflective Thinking in children during mathematics related problem-solving activities. We utilize temporal data consisting of 3D joint positions, to construct a series of classifiers that can predict whether the subject appeared to possess reflective thinking ability during the given instance. We tackle the challenge of highly imbalanced data by incorporating and analyzing several meaningful data augmentation techniques and handcrafted features. We then feed different features through a number of machine learning classifiers and select the best performing model. We evaluate our predictions on multiple metrics including accuracy, F1 score, and MCC to work towards a generalized solution for the real-world dataset. Along with this paper, I will also briefly discuss my current work along with a timeline for completing my PhD.

Wednesday, April 6th, 2022
3:00 PM EST

Online
Please email saandeepaath@usf.edu for more information

THE PUBLIC IS INVITED

<u>*Examining Committee*</u>
Shaun Canavan, Ph.D., Major Professor
Sudeep Sarkar, Ph.D.
Paul Rosen, Ph.D.
Alison Salloum, Ph.D.
Achilleas Kourtellis, Ph.D.

Xinming Ou, Ph.D.
Associate Chair for Graduate Affairs
Computer Science and Engineering
College of Engineering

Sudeep Sarkar, Ph.D.
Department Chair
Computer Science and Engineering
College of Engineering

Disability Accommodations:
If you require a reasonable accommodation to participate, please contact the
Office of Diversity & Equal Opportunity at 813-974-4373 at least five (5) working days prior to the event.