UNIVERSITY OF SOUTH FLORIDA

Major Research Area Paper Presentation

Long Activity Video Understanding using Functional Object Oriented Network
by
Ahmad Babaeian Jelodar

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

Video understanding is one of the most challenging topics in computer vision. In this paper, a four-stage video understanding pipeline is presented to simultaneously recognize all atomic actions and the single ongoing activity in a video. This pipeline uses objects and motions from the video and a graph-based knowledge representation network to identify each functional action unit and a sequence of consecutive functional action units in a video sequence. Two deep networks are trained to identify objects and motions in each video sequence associated with an action and low level image features are used to identify objects of interest in the video sequence. The knowledge representation used in the pipeline is called the functional object-oriented network, which is a graph-based network useful for encoding knowledge about manipulation tasks.

Monday, April 22, 2019
2:30 PM
ENB 313

THE PUBLIC IS INVITED

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Shaun Canavan, Ph.D.
John Licato, Ph.D.
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Heather Culbertson, Ph.D.

Yu Sun, Ph.D.
Graduate Program Director
Computer Science and Engineering
College of Engineering

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

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