

UNIVERSITY OF SOUTH FLORIDA

Major Research Area Paper Presentation

Self-Supervised Temporal Event Segmentation Inspired by Cognitive Theories

by

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

Temporal event segmentation is the process of segmenting long, untrimmed videos into a set of consecutive, coherent units called "events". The human brain receives perceptual inputs, such as visual stimuli, in the form of continuous stream. There is ample evidence that the brain performs segmentation of such perceptual streams into smaller units, which helps with the encoding, and retrieval, of event models into/from long-term memory. An event is defined as "a segment of time at a given location that is perceived by an observer to have a beginning and an end" (Zacks et al.), where an event boundary can be detected when the current event model can no longer explain or predict the features extracted from the new perceptual inputs. This work draws heavily from cognitive science research to design highly effective, and self-supervised, computer vision algorithms for spatio-temporal segmentation of events in videos. The presented approaches utilize a predictive learning framework to segment streaming videos while learning robust representations and features of entities and events.

Monday, April 19th, 2021

11:00 am – 12:00 pm

[Online](#)

Please email ramy@usf.edu for more information

THE PUBLIC IS INVITED

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