



BIG DATA

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Interdisciplinary Data Sciences Consortium

* IDSC Seminar Series *

November 29, 2017 2:00pm-3:00pm

Location: ENB 313

Presents

Dr. Shaun Canavan,

Computer Science & Engineering
College of Engineering



Title: Multimodal Facial Data for Affective Computing

Abstract: Multiple modalities can be used to express human emotion, however, much of the research in recognizing human emotion has only considered one or two modalities. This stemmed, in part, from the lack of a large well-annotated multimodal dataset of facial images. In this talk I will detail some of the current state of the art 3D/4D facial datasets that have been used for this problem. I will also detail a new multimodal dataset that includes highly varied data, from 140 participants, that totals over 10TB in size. This dataset includes 2D, 3D/4D, thermal, and physiological (electrical conductivity of the skin, respiration, blood pressure, and heart rate) data. Applications in affective computing will also be discussed including statistical facial modeling for expression analysis. To conclude, I will discuss current challenges and future work for using multimodal data for affective computing.



Biography: Dr. Shaun Canavan received his PhD in Computer Science from Binghamton University in 2015. During the summer of 2012 he was a visiting faculty member of the Air Force Research Lab in Rome, New York where he worked on 3D object reconstruction from 2D images. After his PhD, he was co-director of the Graphics and Image Computing Lab, as well as a Research Assistant Professor in the Freshman Research Immersion program at Binghamton University where he mentored undergraduates on research in biometrics, HCI, and machine learning. He has published in top conferences such as CVPR, FG, and BTAS. He joined the Department of Computer Science and Engineering, University of South Florida in the fall of 2017.

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