



Rochester Joint Chapter of the IEEE Computer and Computational Intelligence Societies



Rochester, New York

presents

Connecting Vision and Language

by

Raymond Ptucha

Assistant Professor in Computer Engineering, RIT

Date: Friday, September 8, 2017

Time: 11:00 a.m. to 12:30 p.m. -- 11:00 Pizza/Networking, 11:30 Presentation

Location: RIT Campus, Golisano Hall - Bldg 70, Room 1610

Computer Society announcements and venue information:

<http://ewh.ieee.org/r1/rochester/computer>

Cost: Free. Open to IEEE members and non-members.

Registration requested for food/pizza count: <https://events.vtools.ieee.org/m/46683>

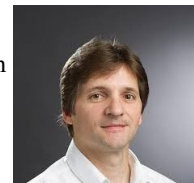


Abstract

Deep learning has enabled incredible advances in computer vision, natural language processing, and general pattern understanding. Success in this space spans many domains including object detection, speech recognition, natural language processing, and action/scene interpretation. For targeted tasks, results are on par with and often surpass the abilities of humans. Recent discoveries have enabled researchers to bridge the gap between visual and written stimulus. For example, the automatic captioning of still imagery, summarization of video, and generation of images from keywords were all difficult tasks two years ago, but with the help of deep learning, are all active research today. Despite great progress, the generic connection of various written and visual modalities remains challenging. This talk will review recent advances in the vision and language domains and introduce a novel vector connection space such that words, sentences, and paragraphs can efficiently and accurately connect with still and motion visual stimuli. Similar deep learning techniques are being applied to everyday devices such as smartphones and wearables and will make our lives more efficient and feature rich.

Speaker's Biography

Raymond Ptucha is an Assistant Professor in Computer Engineering and Director of the Machine Intelligence Laboratory at Rochester Institute of Technology. His research specializes in machine learning, computer vision, and robotics. Ray was a research scientist with Eastman Kodak Company where he worked on computational imaging algorithms and was awarded 31 U.S. patents with another 19 applications on file. He graduated from SUNY/Buffalo with a B.S. in Computer Science and a B.S. in Electrical Engineering. He earned an M.S. in Image Science from RIT. He earned a Ph.D. in Computer Science from RIT in 2013. Ray was awarded an NSF Graduate Research Fellowship in 2010 and his Ph.D. research earned the 2014 Best RIT Doctoral Dissertation Award. Ray is a passionate supporter of STEM education and is an active member of his local IEEE chapter and FIRST robotics organizations.



His website is at <https://people.rit.edu/rwpeec/>.