Title: Data Driven Computer Vision and Biomedical Image Analysis

Speaker: Associate Professor Mei Chen
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Chaired by: Dr Ng Teck Khim, Associate Professor (Practice), School of Computing
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Abstract:

The past fifteen years have seen a revolution in computer vision and biomedical image analysis which has come from embracing data as the primary source of information in solving complex inference problems. The spatio-temporal structure of a class of images, whether it is food items or live cells in a Petri dish, can be implicitly constrained and defined by a well-chosen annotated dataset. This paradigm has led to impressive gains in a number of key areas, due in part to the power of modern machine learning methods when applied to big data. In this talk I will describe my work on data-driven inference for image classification, event detection, and object recognition. A consistent thread in my work is the incorporation of key insights from the problem domain which constrain and bias the learning problem, and lead to effective performance. I will demonstrate this paradigm for a range of applications.

Biodata:

Mei Chen is an Associate Professor in the Department of Informatics at the University of Albany State University of New York. She was the Intel Principal Investigator for the Intel Science & Technology Center on Embedded Computing that was headquartered at Carnegie Mellon University, bringing together researchers from Cornell, Intel, Georgia Tech, Penn State, UC Berkeley, UIUC, and UPenn. Previously she held research and research lead positions at Intel Labs, HP Labs, and Sarnoff Corporation. Mei’s work in computer vision and biomedical imaging were nominated finalists for 5 Best Paper Awards and won 3. While at HP Labs, she successfully transferred her research in computational photography to 5 HP hardware and software products. She earned a Ph.D. in Robotics from the School of Computer Science at Carnegie Mellon University, and a M.S. and B.S. from Tsinghua University in Beijing, China.