

Weekly Seminar

12pm - 1pm, Friday, October 4, 2019
UWM EMS E 237

A Tutorial on Deep Learning: Part II

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Abstract:

Over the past few years, deep learning has become one of the most successful methodologies in solving numerous problems that are traditionally difficult to tackle with knowledge-based approaches in the fields of computer science and many others. This tutorial will cover the basic concepts and practical use of deep learning, where most of the materials are taken from a popular online course on coursera taught by Prof. Andrew Ng.

In this talk, I will start with some basic concepts on computer vision, followed by a review of major components of convolutional neural networks (including convolution and pooling) and several commonly used CNN architectures. Applications of CNNs in image processing (object detection, face recognition, and neural style transfer) will be presented. I will conclude the talk by discussing some basics of recurrent neural network (RNN), gated recurrent unit (GRU), and long short term memory (LSTM), used for sequence data.