MANAGEMENT SCIENCES SEMINAR SERIES

Improving the Generalization of Deep Learning

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2:30-3:30 pm

C107 Pappajohn Business Building

Abstract

Deep learning has brought tremendous success in many areas with the help of big data. However, when the data is not sufficiently enough how to improve the generalization of deep learning remains a challenging problem. In this talk, I will present our recent work on improving the generalization of deep learning. In particular, I will present how to learn a deep convolutional neural network for fine-grained image classification where big labeled data is difficult to be obtained and also present a technique called evolutional dropout for improving the generalization of deep learning and convergence speed of optimizing deep neural networks.

Professor Tang's Bio

Tianbao Yang joined the Computer Science Department at UI in 2014. He received his Ph.D. in Computer Science in 2012 from the Michigan State University. Before joining UI, he worked as a researcher at the NEC Laboratories America and GE Global Research. His research interests lie at the crossroads of machine learning and big data analytics. He has focused on several research topics, including deep learning, distributed optimization, stochastic optimization, and randomized algorithms in machine learning. He has published over 40 papers in prestigious machine learning conferences and journals. He has won the Mark Fulk Best Student paper award at the 25th Conference on Learning Theory (COLT) in 2012. Dr. Yang also served as (senior) program committee or reviewer for several conferences and journals, including AAAI, CIKM, IJCAI, ACML, NIPS, TKDD, TKDE.