

Computer Science Seminar Series

National Capital Region

Large Scale Hierarchical Classification and Multi-Task Learning

Speaker: Prof. Huzefa Rangwala
George Mason University
Friday, October 30, 2015
1:00PM- 2:00PM, NVC 325

Abstract

A vast amount of research has been conducted in this area of supervised learning, specifically addressing various classification problems such as binary, multi-class and multi-label classification. However, in the real world we encounter classification problems where multiple tasks share complex interdependencies between them (e.g., hierarchies). Methods that are able to take advantage of the additional information regarding task relationships and interactions are able to perform better in terms of classification accuracy. Furthermore, with the vast amount of data that is being accumulated in the recent years the real world problems that have any practical utility have exploded in terms of problem size; with respect to number of data elements, feature size and number of class labels. Therefore, there is an urgent need for scalable methods that are able to gracefully scale to such problems. In this talk, I specifically discuss novel classification methods for large scale hierarchical classification and multi-task learning.

Biography



Huzefa Rangwala is an Associate Professor at the department of Computer Science & Engineering, George Mason University. He received his Ph.D. in Computer Science from the University of Minnesota in the year 2008. His research interests include machine learning, learning analytics, bioinformatics and high performance computing. He is the recipient of the NSF Early Faculty Career Award in 2013, the 2014 GMU Teaching Excellence Award, the 2014 Mason Emerging Researcher Creator and Scholar Award, the 2013 Volgenau Outstanding Teaching Faculty Award, 2012 Computer Science Department Outstanding Teaching Faculty Award and 2011 Computer Science Department Outstanding Junior Researcher Award. His research is funded by NSF, NIH, NRL, DARPA, USDA and nVidia Corporation.