



Temple
University

Spring 2022 Colloquium Series
Department of Computer and Information Sciences

Multi-Objective Optimization for Big Data Mining

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Zoom Link: <https://temple.zoom.us/j/97267973604>

Abstract: Multi-objective optimization problems arise in many tasks in data mining such as summarization, feature selection, social network analysis, and network monitoring. While much work has been devoted to single-objective optimization formulations of these problems, work on the multi-objective formulations is relatively sparse. In this talk, I will discuss my previous work developing algorithms for optimization problems arising in data mining. Further, I will present the benefits of taking the multi-objective optimization approach, and I will discuss my plans for future work on developing algorithms for multi-objective formulations that can scale to massive data sets.

Bio: Victoria Crawford is a PhD candidate in the Department of Computer & Information Science & Engineering at the University of Florida. Her PhD work has focused on developing algorithms with theoretical guarantees for optimization problems arising in big data mining applications such as data summarization and social network analysis. Her PhD work has led to 11 publications in conferences and journals including ICML, IJCAI, ICDM, and Journal of Bioinformatics. Her future research interests include exploring multi-objective optimization formulations of problems such as data summarization and developing algorithms that can solve these formulations effectively in practice and that can scale to massive data sets.

