

OPTIMIZATION MODELS IN MACHINE LEARNING

Abstract: Machine learning methods largely benefit from optimization techniques in order to find an optimal model for future predictions and decisions. In machine learning (ML), the common practice is to use classical optimization techniques. However, due to massive and large-scale data sets faced in real world problems, optimization becomes a challenging task and traditional approaches cannot keep up with expectations. Accordingly, optimization methods adapted or integrated for machine learning tasks are needed to make ML more feasible for real world data sets.

In this talk, optimization models developed for classification problems, specifically for kernelized models and ensemble pruning problems will be addressed with applications to real world data sets from facial expression classification database.