Temple University

ANNOUNCES A

Seminar

Mr. Cencheng Shen

Johns Hopkins University

will speak on

Sparse Representation Classification Beyond L1 Minimization and the Subspace Assumption

Time:  3:00 – 4:00 PM
Date:  Friday, February 6, 2015
Place:  Speakman Hall 318

Abstract

In this talk we introduce the sparse representation classification (SRC), which was originally proposed as a very successful classifier on face images by J. Wright, et al. 2009. It was argued that this classifier worked because of its application of L1 minimization and Lasso; and the data in use was restricted to labelled data satisfying a subspace assumption.

For our work, we investigate a principal angle condition on the data to guarantee optimal classification. We prove that SRC can work well using faster subset regression techniques such as orthogonal matching pursuit and marginal regression, and its applicability is not limited to data under the subspace assumption. We illustrate our results via various real data sets including object images, face images, text features, and network adjacency.