

Computer Science Seminar

On margin based semisupervised learning

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Abstract: In classification, semi-supervised learning occurs when a large amount of unlabeled data is available with only a small number of labeled data. This imposes a great challenge in that it is difficult to achieve good classification performance through labeled data alone. To leverage unlabeled data for enhancing classification, we introduce a margin based semisupervised learning method within the framework of regularization, based on an efficient margin loss for unlabeled data, which seeks efficient extraction of the information from unlabeled data for estimating the Bayes rule for classification. In particular, I will discuss three aspects: (1) the idea and methodology development; (2) computational tools; (3) a statistical learning theory. Numerical examples will be provided to demonstrate the advantage of our proposed methodology against other competitors. An application to gene function prediction will be discussed.

Monday, November 9 at 3:00 PM in SEO 427