



UMass Lowell Computer Science Colloquium Announcement

Speaker: Dr. Gregory Piatetsky-Shapiro
President of KDnuggets
Date: Feb. 3, 2003 (Monday)
Time: 3:00pm--4:00pm
Place: Olsen 311 (Refreshments are served at 2:45pm)

Knowledge Discovery in Microarray Gene Expression Data

DNA Microarrays are revolutionizing molecular biology, holding the promise of new applications such as genetic-based diagnostics, finding new molecular targets for therapy, and developing personalized treatments.

However, the large number of genes and a typically small number of samples, present unique challenges for DNA microarray data analysis. We present a methodology for developing good classification models, including data cleaning, feature selection, randomization testing, and iterative wrapper approach for feature reduction.

We illustrate these techniques with a number of software tools and demonstrate results on several datasets that are equal to or better than previously reported.

Brief Bio: Gregory Piatetsky-Shapiro, Ph.D. is the President of KDnuggets, which provides consulting and recruiting services in the areas of data mining, web mining, bioinformatics, and business analytics. Gregory is the Editor of KDnuggets(tm) News, the leading newsletter for the data mining and knowledge discovery community and the associated KDnuggets.com website. Gregory is the founder of Knowledge Discovery in Database (KDD) conference series, having organized and chaired the first KDD workshops in 1989, 1991, and 1993. He helped create ACM SIGKDD, the leading professional organization for Knowledge Discovery and Data Mining, and was elected in June 2001 as a director of SIGKDD. In August of 2000, he received the first SIGKDD Service Award for his contributions to the Data Mining and Knowledge Discovery community. From 2000 to 2001 Gregory was Vice President and Chief Scientist of Xchange, and before that he was Vice President and Chief Scientist of Knowledge Stream Partners, and before that he was a principal member of technical staff at GTE Laboratories. Dr. Piatetsky-Shapiro has edited 2 books on Data Mining and Knowledge Discovery and has published over 50 technical papers.

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