

CCSU
DEPARTMENT OF MATHEMATICAL SCIENCES

COLLOQUIUM

Friday, April 25
9:00 – 9:30 AM
Davidson Hall, Room 207

**PREDICTING MODELING
OF PAY-PER-CLICK KEYWORDS BID VALUE**

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(Data Mining MS Thesis Presentation)

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Abstract: Pay-Per-Click (PPC) keywords are purchased by advertisers, preferably at minimum cost, in order to maximize profit. Data sets with predictors are generated using data collected from the Google Search API for Shopping and the Microsoft Ad Intelligence Service. A linear regression model is used to successfully predict the bid value. Keyword bid values are predicted as increasing or not increasing using a decision tree model. There is a significant increase in Profit per Keywords for those keywords that are predicted as increasing when using a decision tree model. An attempt is made to use a logistic regression model to predict whether keyword bid values are increasing or decreasing. However, the logistic regression model performs poorly when Profit per Keywords is used to measure the effectiveness of the model. When the decision tree model is combined with a linear regression model the results are better than for the linear regression model alone.

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