CCSU
DEPARTMENT OF MATHEMATICAL SCIENCES

COLLOQUIUM

Thursday, April 26
12:00 – 1:30 PM
Maria Sanford, Room 101

ANTI-MONEY LAUNDERING BEHAVIOR: REDUCING THE NUMBER OF NON-PRODUCTIVE ALERTS IN STRUCTURING THROUGH EFFECTIVE DATA MINING

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(Data Mining MS Thesis Presentation)

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Abstract: Financial institutions use alert monitoring systems to combat a number of money laundering behaviors. These systems tend to be third-party applications that generate thousands and thousands of weekly and monthly alerts of which a majority do not indicate suspicious behavior. This drives up costs. This study presents a method to reduce the number of non-suspicious alerts for the Structuring money laundering behavior using data mining methods and models. The CART and C5.0 decision tree algorithms as well as logistic regression are used to reduce the number of non-suspicious alerts, or false positives. In addition, the voting method of combining models was used to further increase the effectiveness over individual models. The goal is to create a method to remove false positives and true negatives without removing true positives and false negatives prior to the analysts investigating the alerts generated by the alert monitoring system. The voting method of combining models found that roughly 5% of the alerts could be removed from being analyzed without losing any suspicious alerts.