

## Department of Statistics MASTER'S THESIS PRESENTATION

## ZACHARY SCHAEFER

Department of Statistics The University of Chicago

Nonparametric Tests to Protect Against Overfitting when Backtesting Multiple Systematic Trading Strategies

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## ABSTRACT

Several problems can arise when backtesting many systematic trading strategies.

One of the most prevalent and dangerous problems is commonly referred to as overfitting. This can easily occur when selecting a single best performing strategy from among many backtested alternatives. Due to the high level of noise present in most financial data, a relatively worthless strategy may rise to the top of the backtested performance results due to luck alone. That is, the strategy happens to align well with the noise in the data while having little if any actual predictive power. I review three nonparametric techniques which can be used to protect against overfitting when backtesting multiple systematic trading strategies. I also present an example illustrating how these techniques can be employed in practice.

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