

## **UNDERGRADUATES PURSUING RESEARCH IN SCIENCE AND ENGINEERING (UPRISE)**

## MATHEMATICAL SCIENCES MCMICKEN COLLEGE OF ARTS & SCIENCES

APPLICATION DEADLINE: 03/01/2018

PROJECT TITLE: Regression Tress

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## Project Description

Regression trees are a flexible way to assess relationship between an outcome and a set of factors or variables that have causal or non-causal relationship with the outcome, and predict the outcome for new values of the factors. Regression tress are used widely in practice. How well does this method work in certain scenarios, such as when the factors are highly correlated or when the number of factors is large. How can it be used when two (or more) outcomes are of interest. This project will start with learning to use the Regression Tree and then investigate its performance under the above mentioned scenarios.