



STATISTICS COLLOQUIUM



Using split modeling and visualizations to show contributing factors and predictions for high risk scheduling activities

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Neill Hall 5W

Refreshments available during the presentation

Boeing Military Aircraft contains multiple different programs, each with their own subprojects and scheduled activities. The goal of our analysis was to determine the contributing factors to actual duration of scheduling activities and then be able to predict duration all while be able to build an interactive dashboard and a trained model ready for deployment. This presentation will help participants to see ways that we can utilize R, Tableau, SPSS Modeler and corresponding collaboration and server environment to pull together one complete package that is useable by business partners. We will cover a variety of statistical techniques from text mining, split modeling with generalized linear modeling, and finally visualization techniques of the original data and the predictions. The first portion of the analysis is relatively complex and most business partners generally do not want a full in-depth statistical report. The key in the visualization aspect of this project is to help business partners digest complex information in a quick, valuable, and actionable manner. The use of the predictive modeling and end product being a visualization has had a positive impact on the business partners who use the workbook. These techniques of incorporating multiple tools to analyze a diverse data and communicate results to a business user can be applied to any industry where data variety and complexity is apparent.

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