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CENTER FOR BUSINESS ANALYTICS

UNIVERSITY of WASHINGTON | TACOMA Milgard School of Business



Project Background: The story of Communities in Schools (Tacoma) began in 2001, a dropout prevention program whose mission is to bring community resources inside public schools where they are accessible, coordinated and accountable. CIS Tacoma faces challenges in tracking and understanding the student performance. The opportunity lies in analyzing the trends of student performance through data visualizations and take necessary actions for improvement efforts.

Project Goal: The purpose of this project is to develop a predictive model to predict students who would likely underperform in the future based on student data such as grades, family background and determine which students need additional resources to perform better. In addition, create a data collection tool to feed predictive pipeline.



Predictive/Prescriptive analytics: Data discovery:

Our sample data was the main source of data that was used for testing and scoring our model. For production, our data in azure data instance was fed through R to perform a predictive model.

Descriptive/Diagnostic analytics through Power BI :

- Reading and Math grades by student ID
 Attendance for Reading & Math classes by student ID
 - Need assessment (housing, family and food) by student ID
 - Student by guardian and gender.

Tools & Apps used:







Recommendations & Future Plan :

- . Adopt the predictive model for better identification of students who are at risk for underperformance.
- Increase data collection for interventions with PowerApps.
- . Create customer pipeline.
- . Identify strategies for increasing data collection.



Data collection through power apps:





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