

UNIVERSITY *of* WASHINGTON

Dropout Prediction Project

Utilizing Data to Support Student Success



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LIVE DEMO: PREDICTIVE ANALYTICS

Last Term Total Credits (11.8141):

Students with more credits in their last term are significantly more likely to drop out.

Total Degree Credits (-7.80713):

Accumulating more credits towards a degree correlates with a lower dropout likelihood.

UW Earned Credits (-4.94404):

Earning more credits from the University of Washington reduces dropout probability.

UW Tacoma Degree (-4.58006):

Graduating from UW Tacoma is associated with a decreased dropout risk.

Transfer Student (-2.3259):

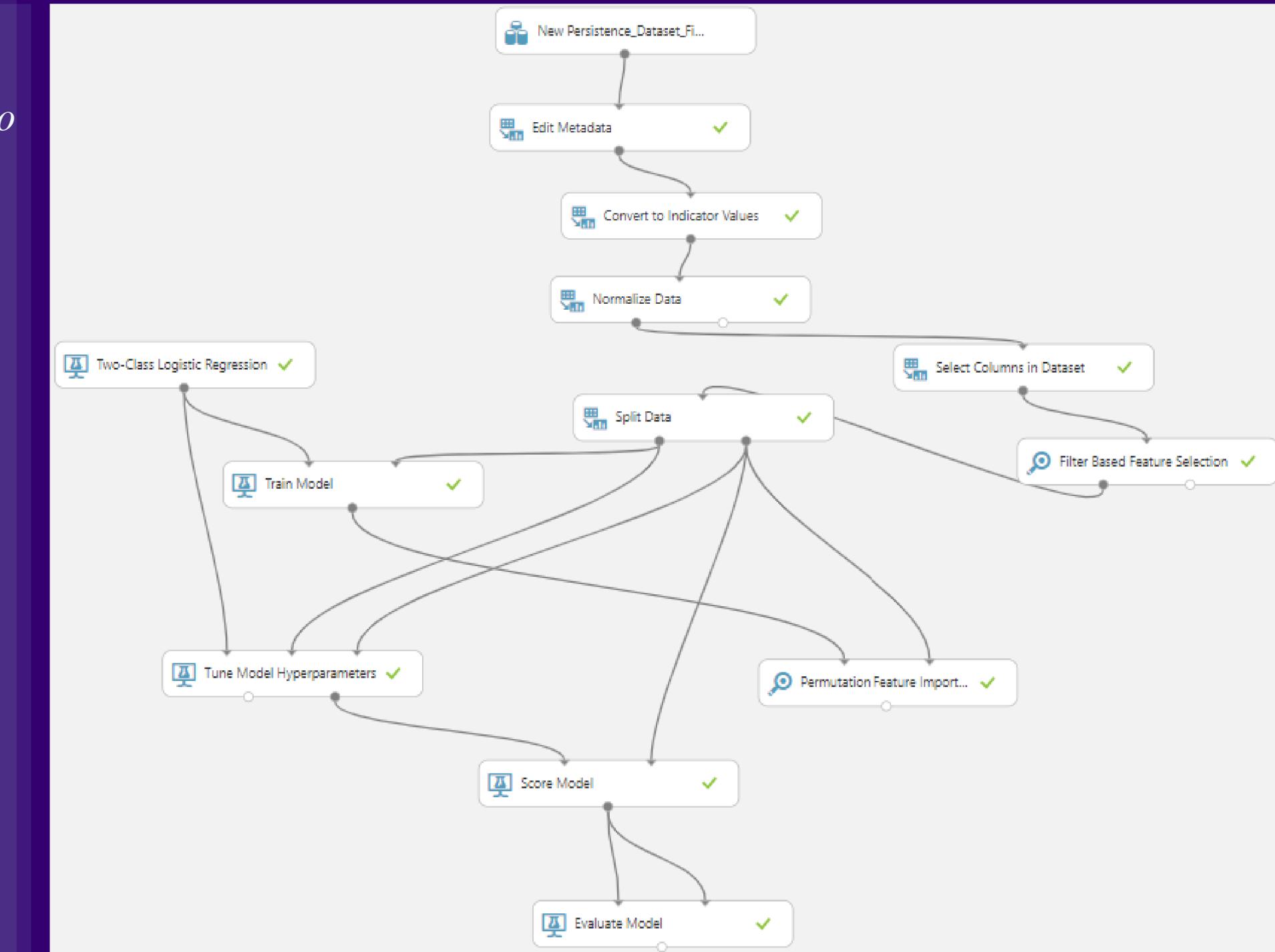
Transfer students are less likely to drop out compared to non-transfer students.

Time to Degree in Years (-2.11145):

Taking longer to complete a degree is linked with reduced dropout rates.

Age (-0.631151):

Older students have a slightly lower chance of dropping out.



LIVE DEMO: PRESCRIPTIVE ANALYTICS

What solutions can we offer to UWTIR?

Power App that requires user inputs and generates the scored probability of dropout from Azure ML Model.
The app generates 0 if the student will graduate (green), 1 if the student drops out (red)

The image shows a Power App flow on the left and its corresponding prediction interface on the right.

Power App Flow:

```
graph TD; A[PowerApps (V2)] --> B[HTTP]; B --> C[Parse JSON]; C --> D[Respond to a Power App or flow]
```

Prediction Interface:

Welcome to Student Dropout Prediction App

Input Parameter	Value
Transfer student	0
Degree UWT	1
Total Credits	100
UW Earned Credits	70
Time to Degree in Years	4
Last mm total credits	0
Last mm class	3
Age	30

Predict

Scored Label: **0** Probability: **0.00**

A horizontal slider at the bottom ranges from 0 to 1, with a green dot at 0 indicating the current score.

LIVE DEMO: PRESCRIPTIVE ANALYTICS

- The purpose of the app is to predict the student dropout probability based on Logistic Regression, built in Azure ML.
- it is interactive tool generates the result based on features (transfer student, degree received as University of Washington, number of total credits, number of total credits earned at UW, time to finish the degree, last minimaster credits, last minimaster class and age)
- We used ML and Power App
- The output is 1 if the model predicts student will dropout (Red), 0 if the student will graduate(green).

