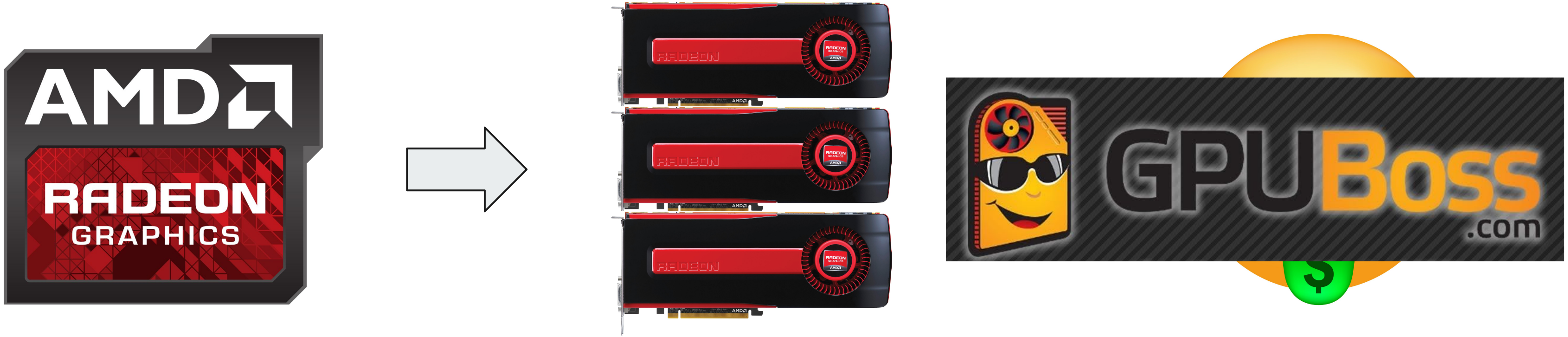
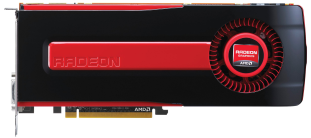
Tackling GPUBoss.com Review Scores

October 12, 2018

Imagine...


AMD
RADEON
GRAPHICS
RADEON
GPUBoss
.com

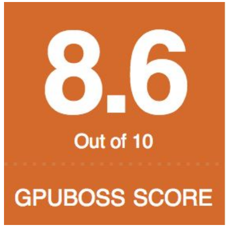
Imagine...



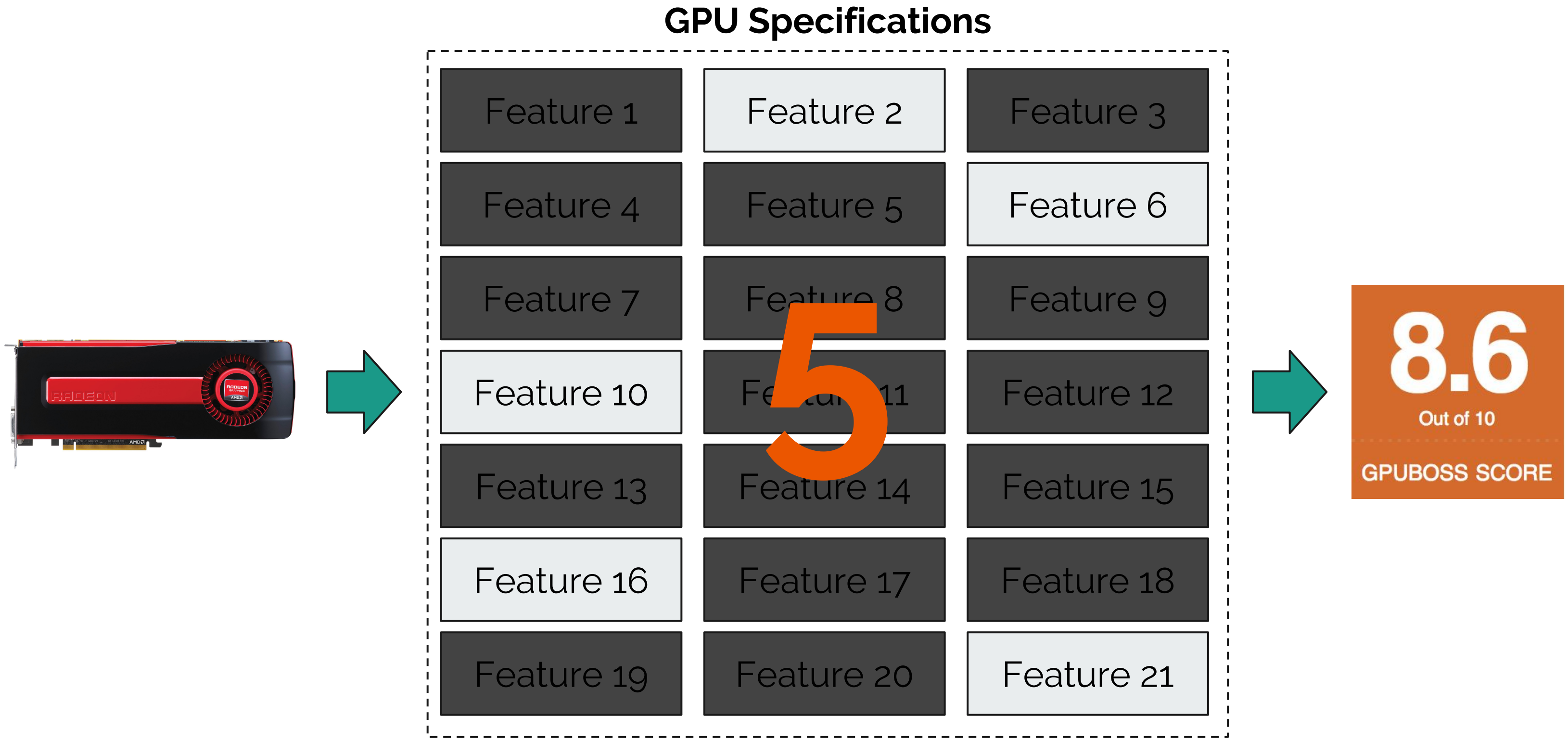
GPU Specifications

Feature 1
Feature 2
Feature 3
Feature 4
Feature 5
Feature 6
Feature 7
Feature 8
Feature 9
Feature 10
Feature
Feature 12
Feature 13
Feature 14
Feature 15
Feature 16
Feature 17
Feature 18
Feature 19
Feature 20
Feature 21

40+



Imagine...



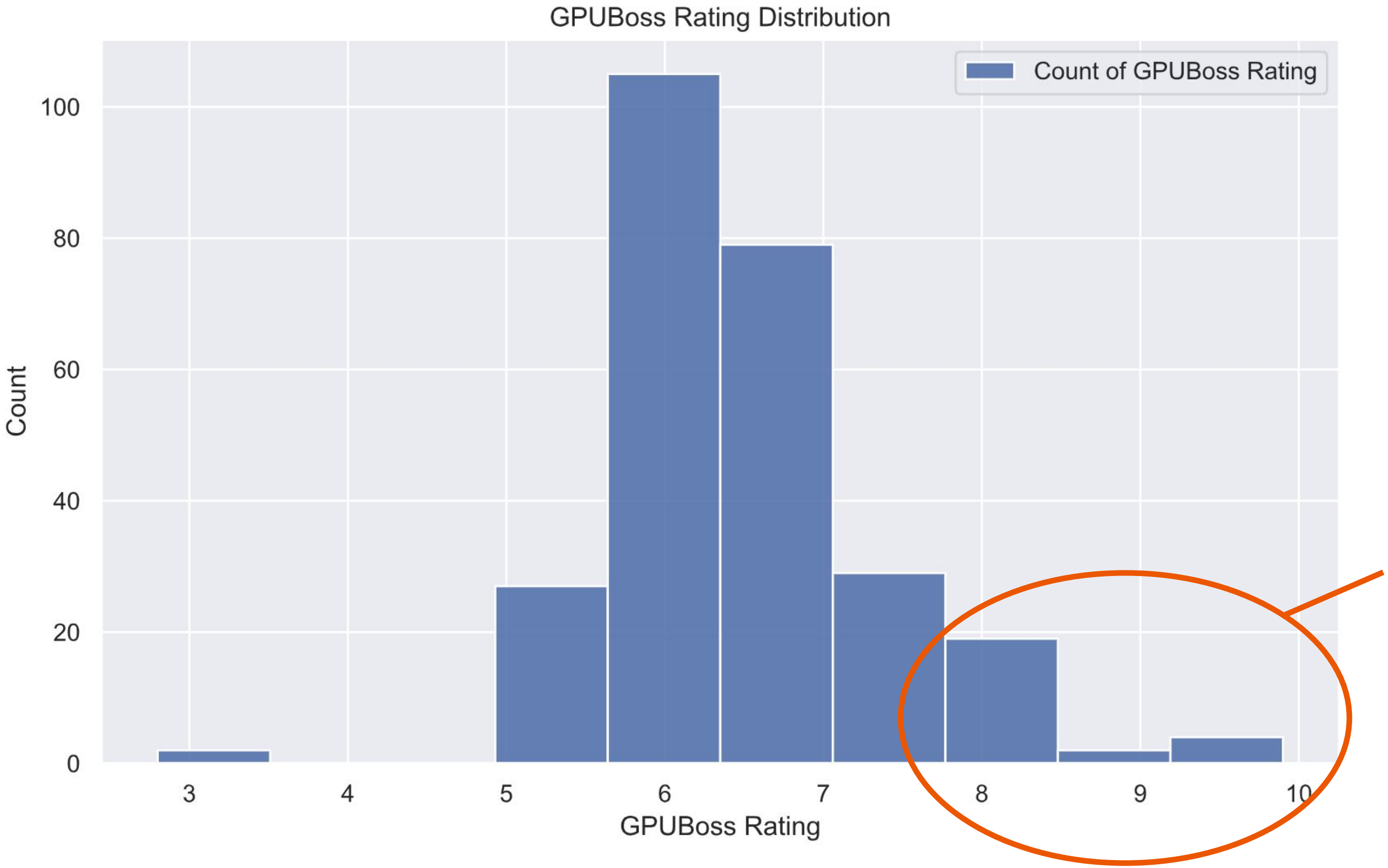
GPU Specifications

Feature 1
Feature 2
Feature 3
Feature 4
Feature 5
Feature 6
Feature 7
Feature 8
Feature 9
Feature 10
Feature 11
Feature 12
Feature 13
Feature 14
Feature 15
Feature 16
Feature 17
Feature 18
Feature 19
Feature 20
Feature 21

5

8.6
Out of 10
GPUBOSS SCORE

ye5



- Min Score: **2.8**
- Max Score: **9.9**
- Mean: **6.5**

Number of GPUs with score > 8.0: **11**

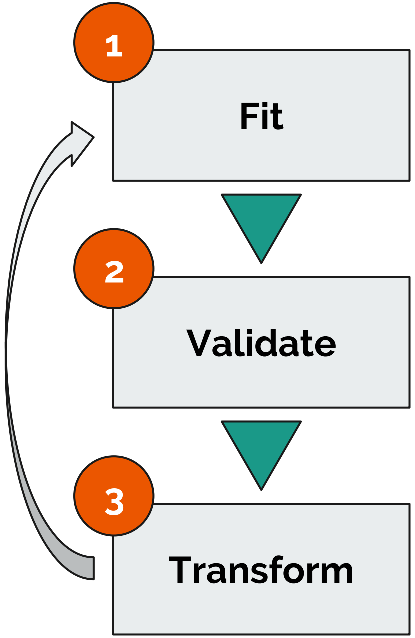
Goal

Define Graphics Processing Unit (GPU) specifications that result in **higher** review scores from reputable website GPUBoss.com

8.6
Out of 10
GPUBOSS SCORE

Approach

Capture:
- GPUBoss Review Scores
- Benchmarks
- GPU Specifications


1
Fit
2
Validate
3
Transform

Feature 1
Feature 2
Feature 3
Feature 4
Feature 5

Data

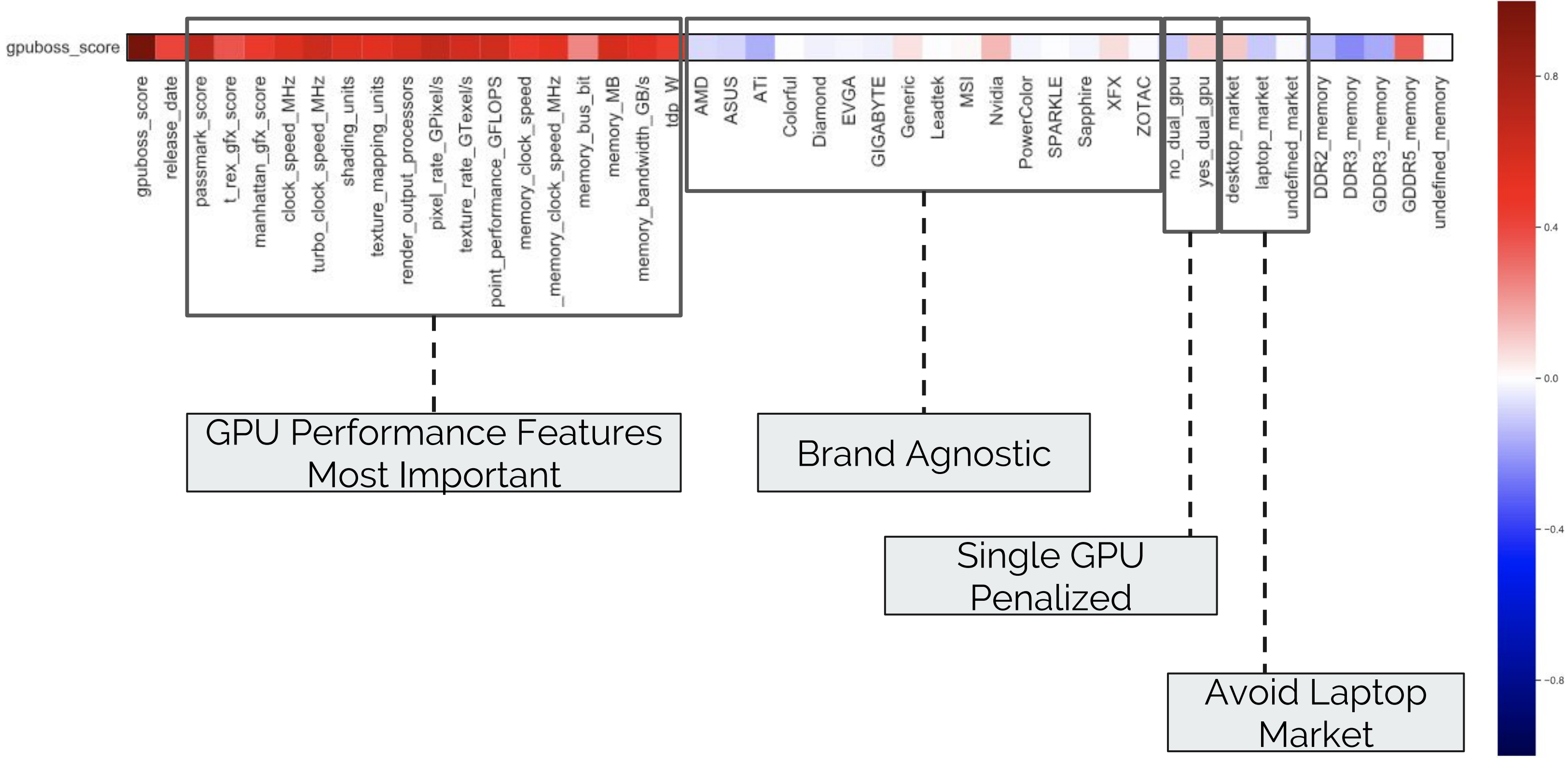
Model

Predict

Tools

Tools	Purpose
Se BeautifulSoup	● Data Scraping
scikit learn SM StatsModels Statistics in Python pandas $y_{it} = \beta' x_{it} + \mu_i + \epsilon_{it}$ NumPy	● Model ● Regularization ● Feature Transformation
matplotlib Seaborn	● Data Visualization

Correlation Heatmap



GPU Performance Features Most Important

Brand Agnostic

Single GPU Penalized

Avoid Laptop Market

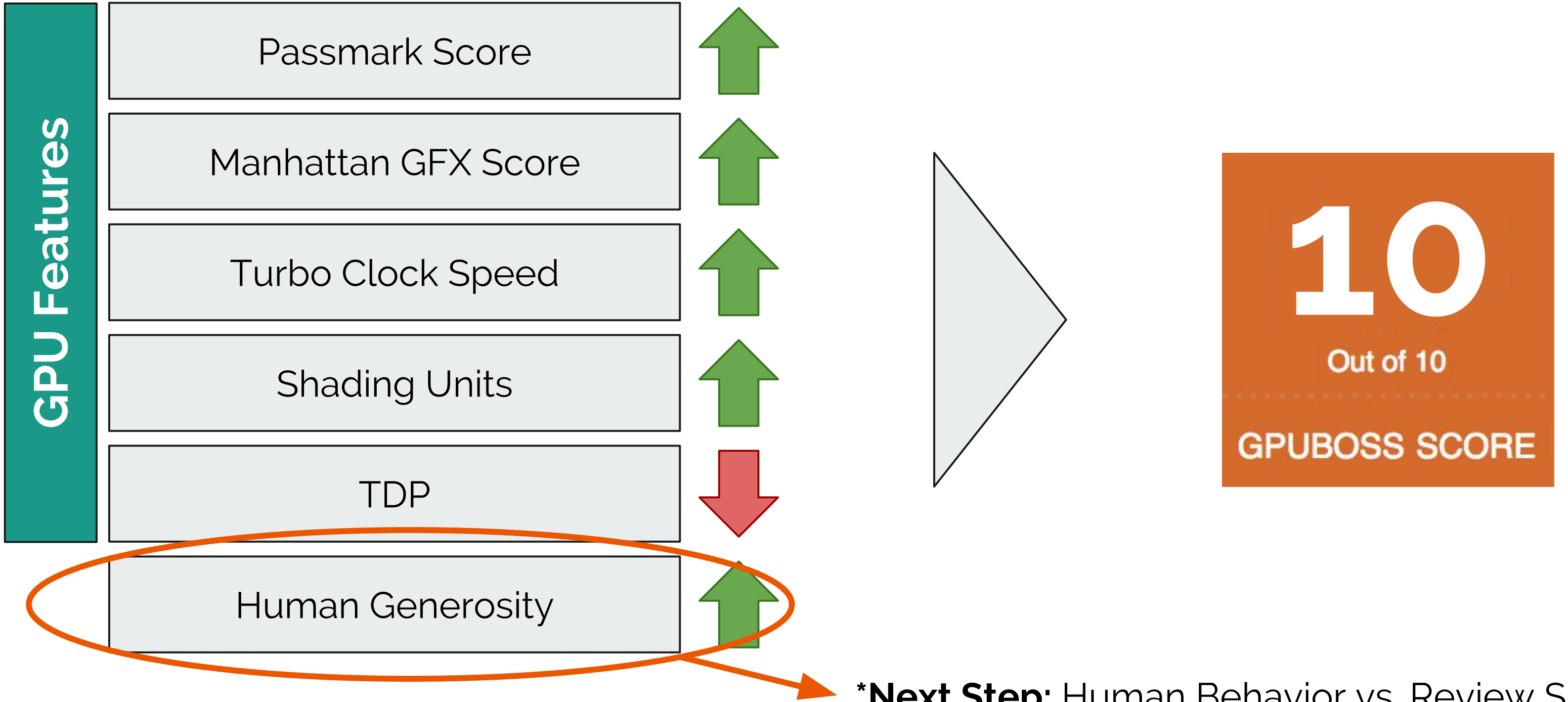
Final Results

GPU Feature	Beta Coef
Passmark Score	1.314e-04
Manhattan GFX Score	5.717e-05
Turbo Clock Speed	1.268e-03
Shading Units	1.411e-04
TDP	-1.789e-03

*** all P-value equal 0.020 or less**

Model Performance	Score
R-squared	0.47

Conclusion


GPU Features
Passmark Score ↑
Manhattan GFX Score ↑
Turbo Clock Speed ↑
Shading Units ↑
TDP ↓
Human Generosity ↑
10
Out of 10
GPUBOSS SCORE

***Next Step:** Human Behavior vs. Review Scores

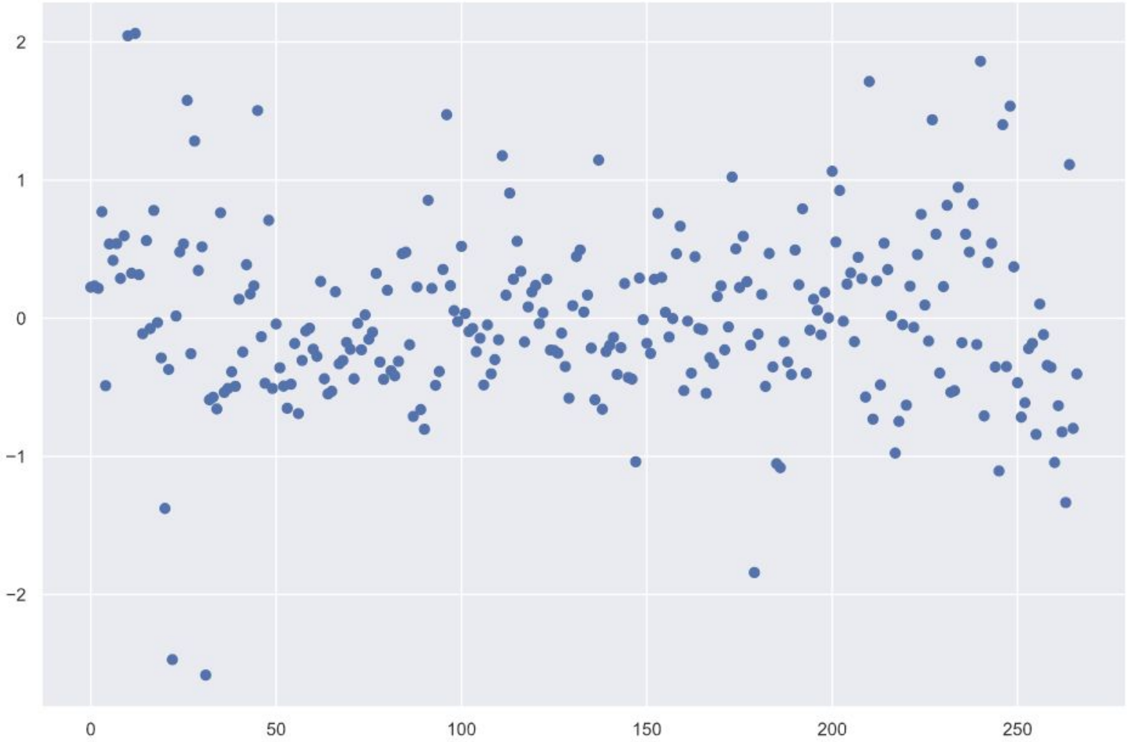
Questions?

Appendix

Resources

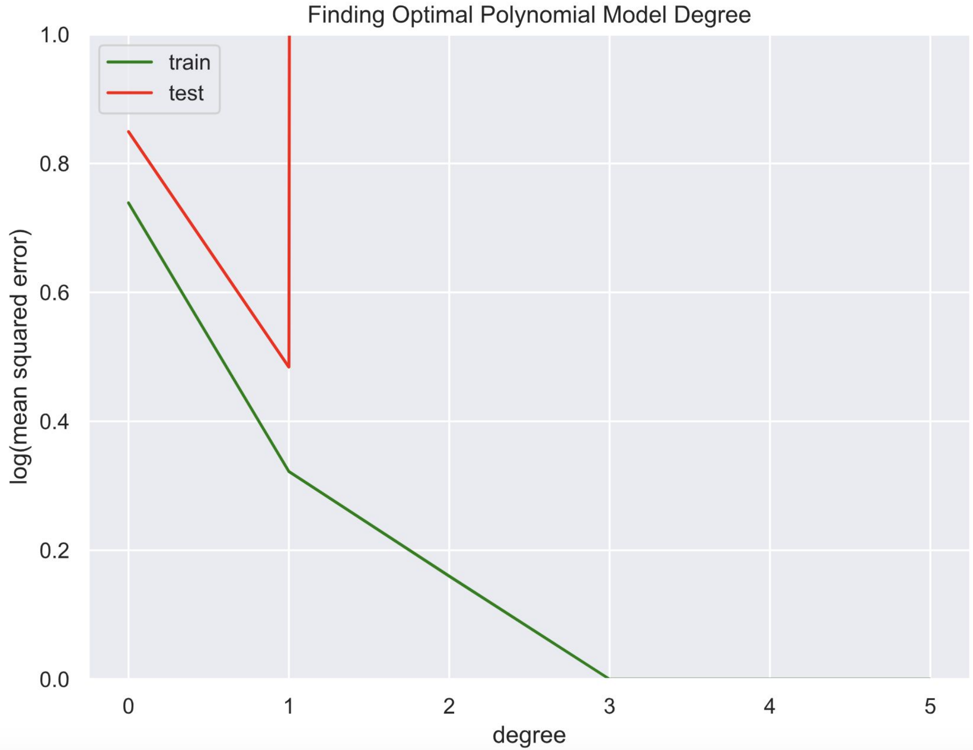
- GPUBoss website - URL
- Passmark score - URL
- GFX benchmark - URL
- GPU specifications - URL
- TDP - URL
- How High Does R-Squared Need To Be? - URL

Residual Plot



X-axis: row of data

Y-axis: residual (actual value - predicted value)

Polynomial Regression Check