Callaghan Investments

New Service:
Stock Value Proximity

Stock Value Proximity

- *What is it?*

  - Recommend similarly valued stocks

Stock Value Proximity

- *Who is it for?*

  - Value investors
  - Use-cases: Shorting and Longing

Stock Value Proximity

- *How does it work?*

  - Financial valuation metrics
  - Group similar stocks together

Stock Value Proximity: Metrics Overview

- Silhouette Score
- Inter-Cluster Similarity
- Cluster Distribution

Stock Value Proximity: Baseline Model Results

- Baseline Model

  - Silhouette Score: 0.86

  - Avg Inter-Cluster Distance: 34.5

Stock Value Proximity: Baseline Model Results

Cluster #	Number of Stocks
0	1325
6	8
3	4
9	2
2	1

Cluster #	Number of Stocks
4	1
5	1
8	1
1	1
7	1

Stock Value Proximity: Updated Model Results

- Updated Model

  - Silhouette Score: 0.144

  - Avg Inter-Cluster Distance: 10.40

Stock Value Proximity: Updated Model Results

Cluster #	Number of Stocks
2	270
13	214
4	161
6	152
7	142
14	138
12	113

Cluster #	Number of Stocks
0	75
3	16
10	10
8	6
1	5
11	1

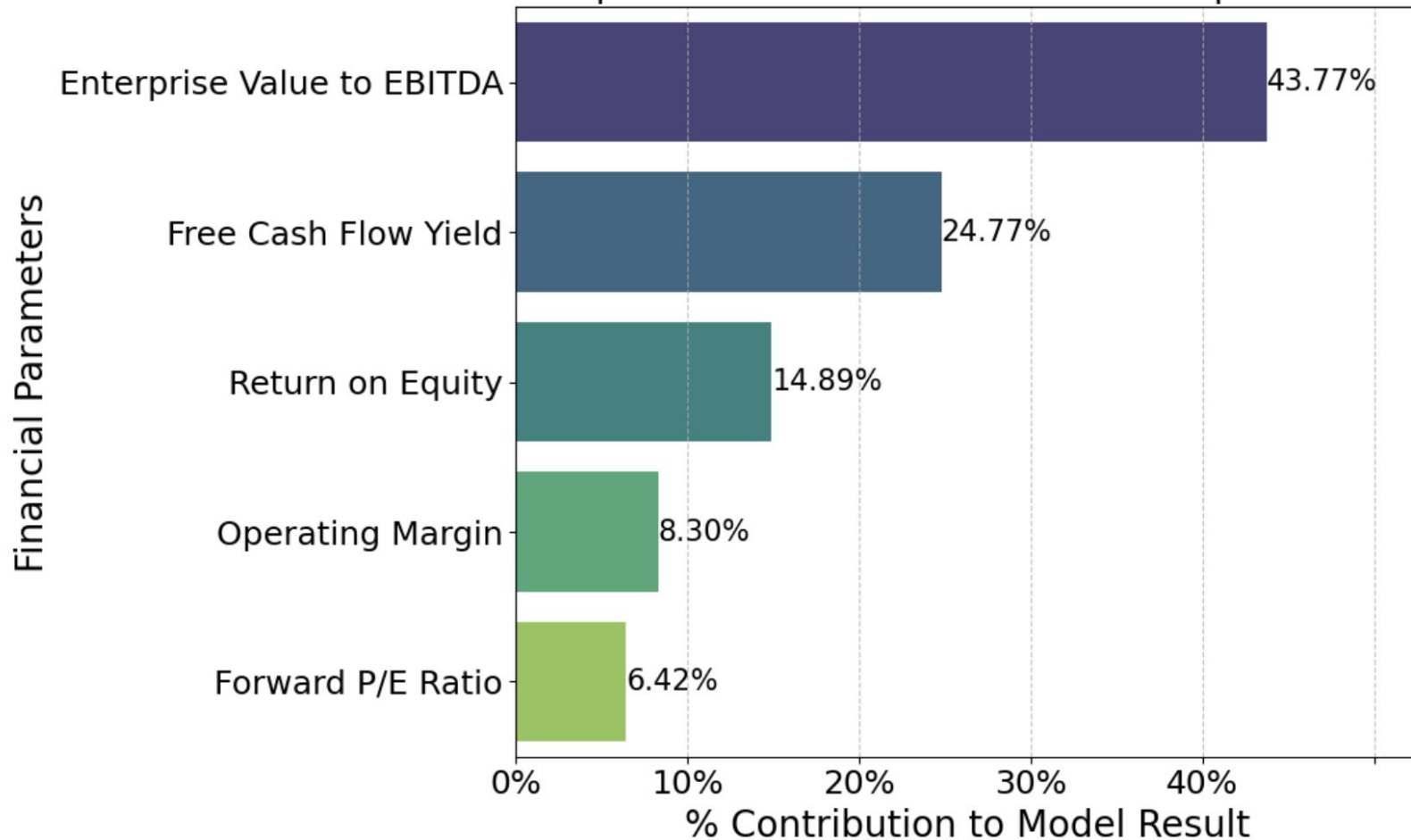# Stock Value Proximity: Final Model Results

- Final Model

  - Silhouette Score: 0.15

  - Avg Inter-Cluster Distance: 11.23

Stock Value Proximity: Final Model Results

Cluster #	Number of Stocks	Cluster #	Number of Stocks
2	199	27	60
19	148	7	58
9	132	4	51
28	103	21	48
20	91	29	45
1	89	3	26
8	88	15	23
0	81	5	20
6	68	17	15

Top 5 Financial Valuation Feature Importance

Stock Value Proximity: 'AAPL' Input Example

	Symbol	Cluster	Distance
0	ORCL	1	0.0000
16	WM	1	0.9233
17	AON	1	1.6774
22	ECL	1	2.0956
53	AVY	1	2.2445

Stock Value Proximity: Limitations and Solutions

- Limited Yahoo Finance Data
- Value Investor judgement
- Undetermined Cluster Distribution

Callaghan Investments: Stock Screening Proximity

Questions