

# Image Recognition in a Beef-Driven World

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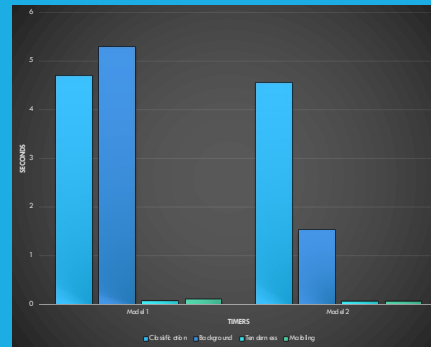
### Objective

An app which classifies the cut of meat found at a grocery store and makes further calculations regarding marbling, tenderness, and quality.

### Goals

- (1) Evaluate the accuracy of the existing model
- (2) Reduce the runtime of the app

### Time Reduction



#### Model Two Times

- Classification: 4.54 seconds
- Background Removal: 1.51 seconds
- Tenderness: 0.05 seconds
- Marbling: 0.05 seconds

**Total Time: 6.16 seconds**

### Accuracy Testing

#### Model One

	1	2	3	4
(1) Sirloin	0	0	0	0
(2) Ribeye	0	1	0	0
(3) Eye of Round	0	0	0	0
(4) Chuck	0	0	0	2
(5) New York Strip	7	12	6	11
(6) Flank	4	1	3	2
(7) Tenderloin	6	6	8	2
(8) Short Rib	0	0	2	3

#### Model Two

	1	2	3	4	5	6	7	8
1	0	0	0	0	0	0	0	0
2	0	1	0	1	0	1	1	0
3	0	0	0	0	0	0	0	0
4	2	2	0	1	2	1	0	3
5	8	12	4	11	13	10	11	8
6	0	2	3	2	3	7	2	2
7	9	2	10	0	1	1	5	1
8	1	1	3	5	1	0	1	6

### Conclusions

Time has been significantly reduced without greatly affecting the model's accuracy.

To improve the model's accuracy, a new model with a new training dataset will likely be needed.