



deeplearning.ai

Setting up  
your goal

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Satisficing and  
optimizing metrics

# Another cat classification example

optimizing ↓      ↓ Satisficing

Classifier	Accuracy	Running time
A	90%	<u>80ms</u>
B	<u>92%</u>	<u>95ms</u> ←
C	95%	<u>1,500ms</u>

$$\text{Cost} = \text{accuracy} - 0.5 \times \text{running Time}$$

maximize accuracy

Subject to running Time  $\leq$  100 ms.

N metrics :      1 optimizing  
                      N-1 satisficing

Wakewords / Trigger words

Alexa, OK Google,

Hey Siri, nihao baidu  
你好百度

accuracy.  
 #false positive

maximize accuracy.

s.t.  $\leq$  1 false positive  
every 24 hours.