deeplearning.ai

Setting up your goal

Satisficing and optimizing metrics

Another cat classification example

These are the 2 things you care about

Classifier	Accuracy	Running time
A	90%	80ms
B	92%	95ms
C	95%	1,500ms

You can construct some eqn

Cost = Accuracy - 0.5 x Running time

(Seems Artificial, why 0.5 ?)

OR Find some func

- that maximizes Accuracy

Subject to Running time $\leq$ 100 MS

$\Rightarrow$ Accuracy = optimizing metric

Running time = satisficing metric

↳ just needs to be good enough

In this case, we would pick classifier 'B' as it satisfies < 100 MS, & has highest Accuracy

In General,

N metrics

1 metric - optimizing

N-1 satisficing

Another example of optimizing V/S satisficing

- consider wake words / Trigger words

↳ Alexa, Cortana etc

- one thing you may want as optimizing metric is accuracy

When someone says a word, how likely is your system to wake up

$\Rightarrow$ maximize Accuracy

s.t. there is $\leq$ 1 False tve rate every 24 hours

False tve

↳ Responds when no one says "Alexa"

Andrew Ng