



deeplearning.ai

Setting up your ML application

Train/dev/test sets

Applied ML is a highly iterative process

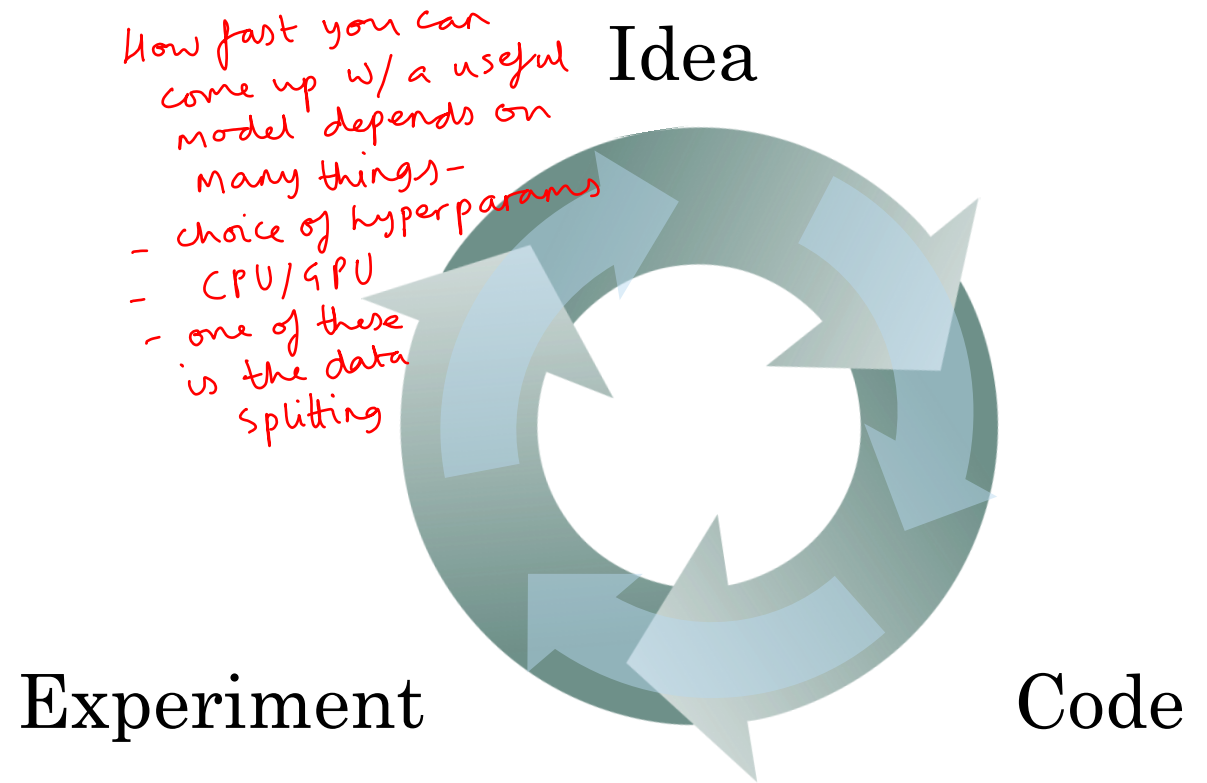
layers

hidden units

learning rates

activation functions

...



Train/dev/test sets

↓
- hold out set
- cv set

↪ final model

If you have 100, 1000, 10K samp
then divide 60-20-20

with $\geq 1M$ examples
you don't want your model
to test on 200K samples
maybe 10K samples are enough for test

$\Rightarrow 98:1:1$

If 10B examples

$\Rightarrow 99.5:0.25:0.25$

Mismatched train/test distribution

Training set:

Cat pictures from
webpages

(High Quality Imgs from Google)

⇒ Make sure dev & test sets
come from same distribution

Dev/test sets:

Cat pictures from
users using your app

(Taken w/ cheap cameras / blurry images)

Not the same!

- Model may give wrong results
(not trained on same data)
- This would be caught if dev/test
have same dist

If your model doesn't need to
report completely unbiased
results, then you may not
need a test set



Not having a test set might be okay. (Only dev set.)