










deeplearning.ai

Error Analysis

Cleaning up
Incorrectly labeled
data

Incorrectly labeled examples

x							
y	<u>1</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>1</u>	1

Training set.

↑

DL algorithms are quite robust to random errors in the training set.

Systematic errors

Error analysis

↙

Image	Dog	Great Cat	Blurry	Incorrectly labeled	Comments
...					
98				✓	Labeler missed cat in background
99		✓			
100				✓	Drawing of a cat; Not a real cat.
% of total	<u>8%</u>	<u>43%</u>	<u>61%</u>	<u>6%</u>	

↕

↙

↙

Overall dev set error

Errors due incorrect labels

Errors due to other causes

100%

0.6% ←

9.4% ←

↑

2%

0.6%

1.4%

2.1%

1.9%

Goal of dev set is to help you select between two classifiers A & B.

Andrew Ng

Correcting incorrect dev/test set examples

- Apply same process to your dev and test sets to make sure they continue to come from the same distribution
- Consider examining examples your algorithm got right as well as ones it got wrong. (2%) (98%)
- Train and dev/test data may now come from slightly different distributions.