








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.

The 7th example (white dog) is highlighted with a blue box and an arrow pointing to its label '1', indicating it is an incorrectly labeled example.

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

Systematic errors : less robust
(consistently labels like daffodils)

Error analysis

while dog is cat

Extra col

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	8%	43%	61%	6%	

Overall dev set error
(test)

Errors due incorrect labels

Errors due to other causes

100%

0.6% ←

9.4% ←

↑

2%

0.6%

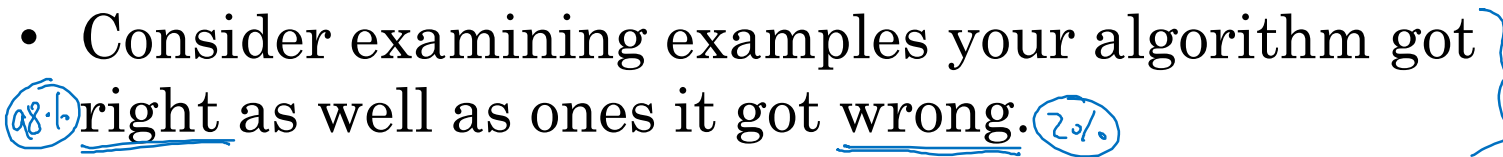
1.4%

2.1%

1.9%

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

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.

- Train and dev/test data may now come from slightly different distributions.