










deeplearning.ai

# Error Analysis

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## 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 ..... 10%

Errors due incorrect labels ..... 0.6% ←

Errors due to other causes ..... 9.4% ←

↑

2.1%

1.9%

✓  
2.0%  
✓  
0.6%  
1.4%  
2.1%

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. 20%
- Train and dev/test data may now come from slightly different distributions.