










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.

as long as the error is ^{Systematic errors} random

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	<u>10%</u>	
Errors due incorrect labels	0.6% ←	<div style="border-left: 1px solid black; padding-left: 10px; margin-left: 10px;"> <div style="text-align: right;">2%</div> <div style="text-align: right;">0.6%</div> <hr style="width: 50%; margin: 0 auto;"/> <div style="text-align: right;">1.4%</div> </div>
Errors due to other causes	9.4% ←	<div style="text-align: right; margin-top: 10px;">2.1%</div> <div style="text-align: right; margin-top: 10px;">1.9%</div>



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.