



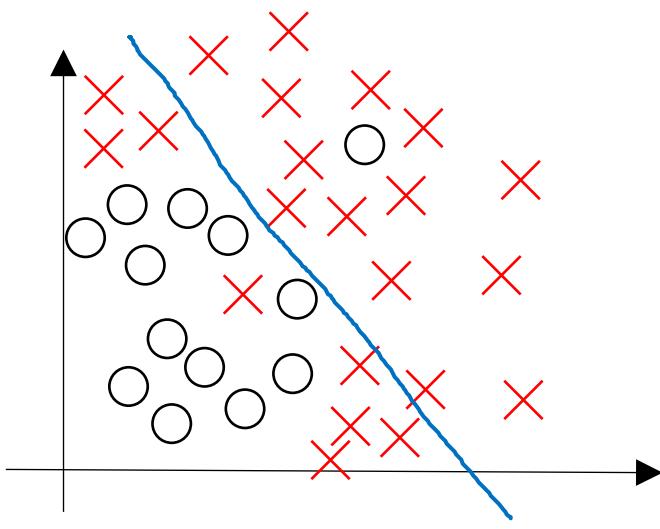
deeplearning.ai

Comparing to human-level performance

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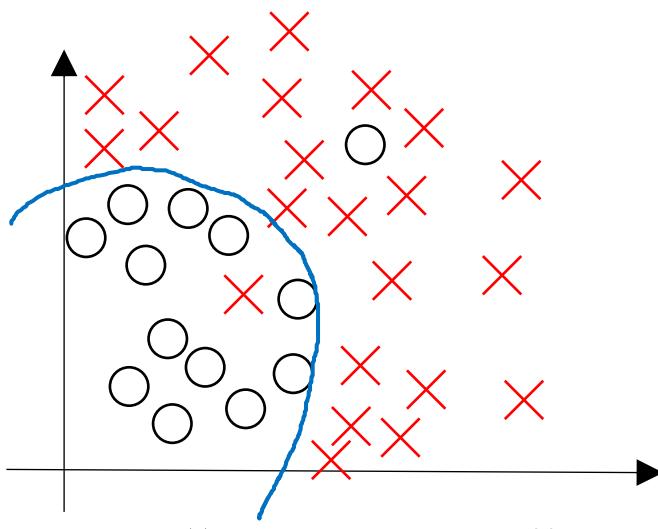
Avoidable bias

# Bias and Variance

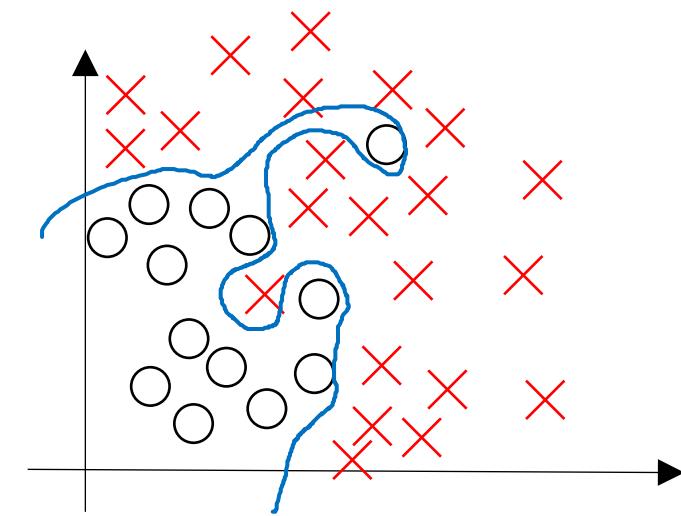


high bias

*Underfitting*



"just right"



high variance

*Overfitting*

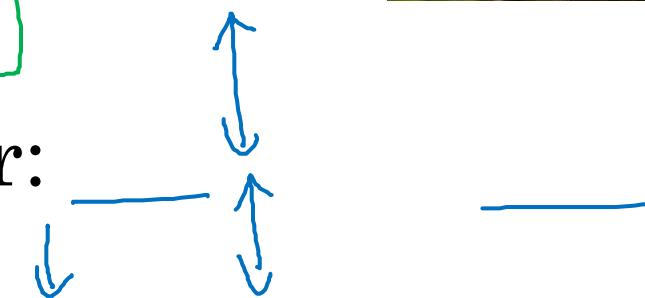
# Bias and Variance

Cat classification

Human-level  $\approx 0\%$

Training set error:

Dev set error:



high variance

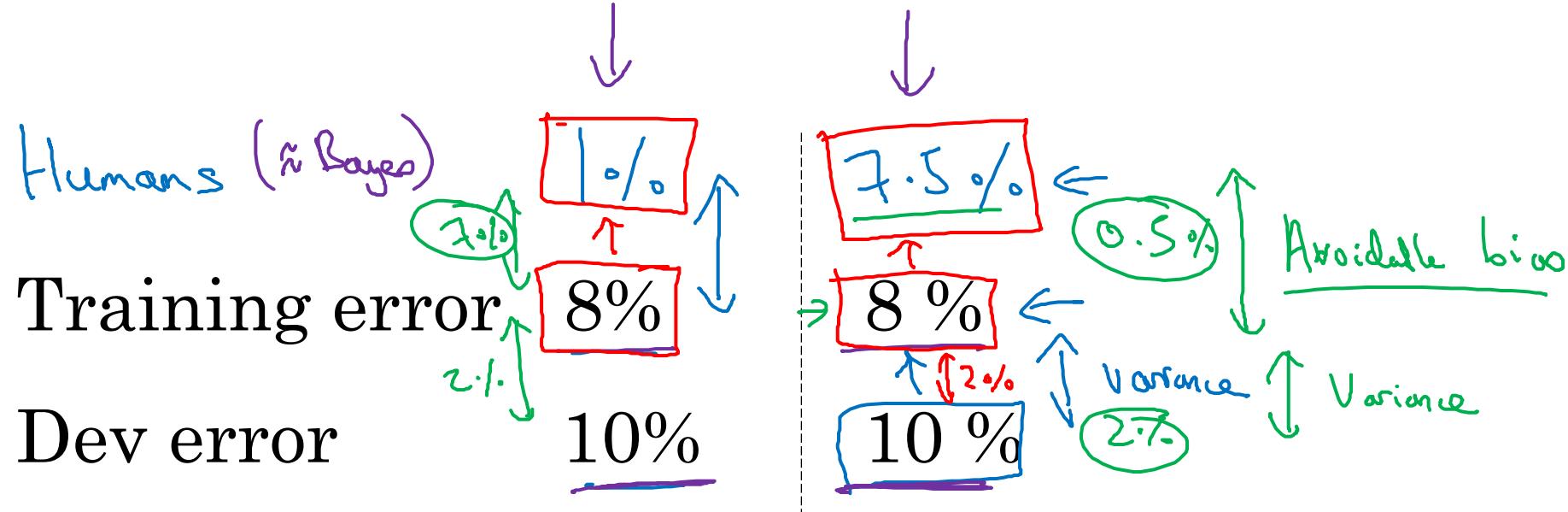
high bias

high bias  
high variance

low bias  
low variance



# Cat classification example



Focus on

bias

Human-level error as a proxy for Bayes error.

Focus on

Variance