deeplearning.ai

Comparing to human-level performance

# Avoidable bias

Bias and Variance

high bias

underfitting

"just right"

high variance

overfitting.

Andrew Ng
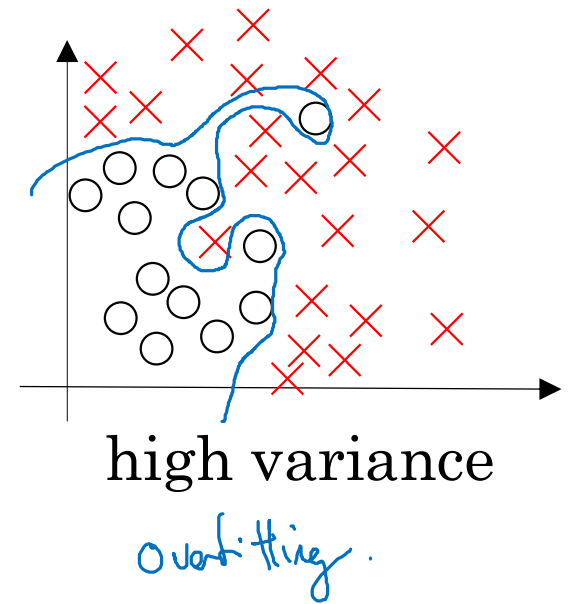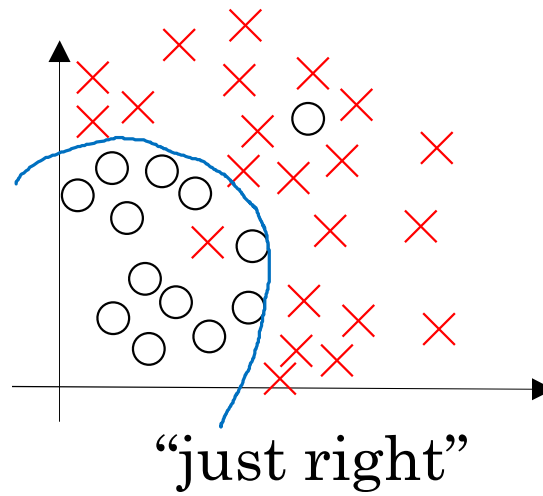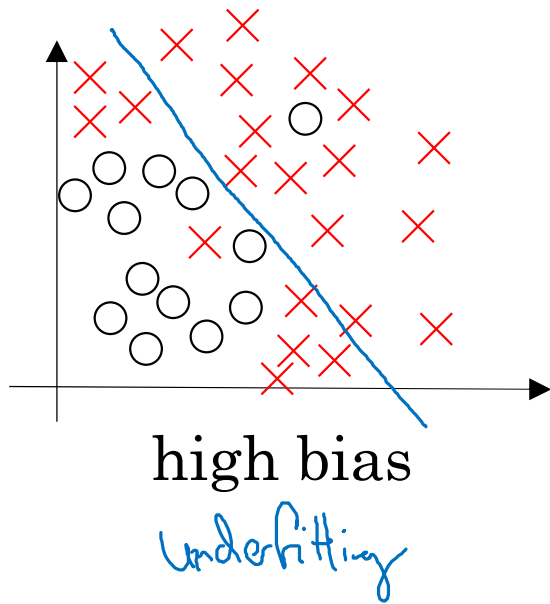
Bias and Variance

Cat classification

Human-level $\approx 0\%$ · · · ·

Training set error: _____ _____

Dev set error:

high variance   high bias   high bias   low bias

high variance   low variance

Cat classification example

Humans ($\approx$ Bayes)

Training error   8%   8 %

Dev error   10%   10 %

1 %   7.5 %

7 %   0.5 %   Avoidable bias

2 %   2 %   Variance   Variance

2 %

Focus on bias   Focus on variance

Human-level error as a proxy for Bayes error.

Andrew Ng