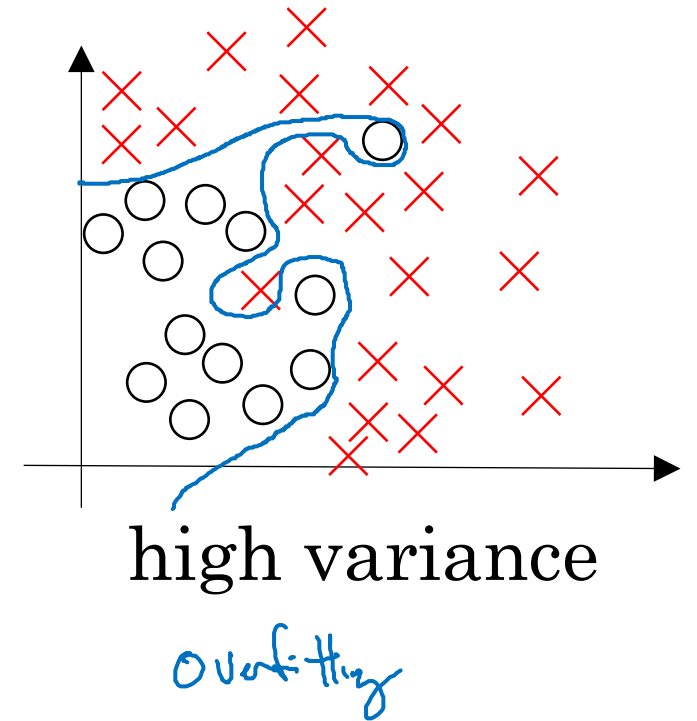deeplearning.ai
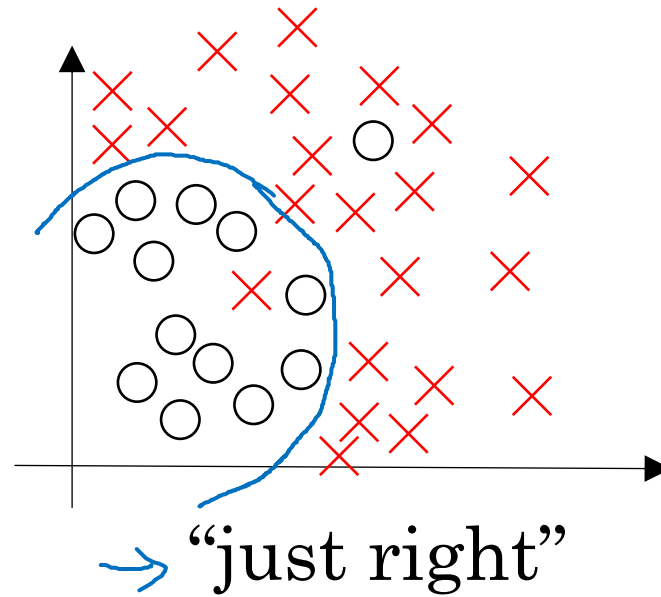
# Setting up your ML application
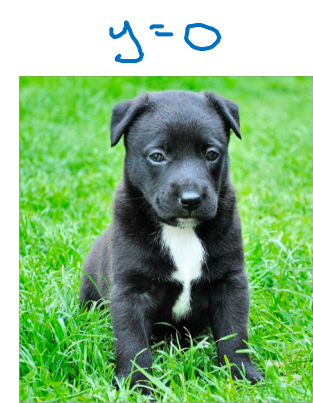
---

# Bias/Variance

# Bias and Variance



high bias

"just right"

high variance

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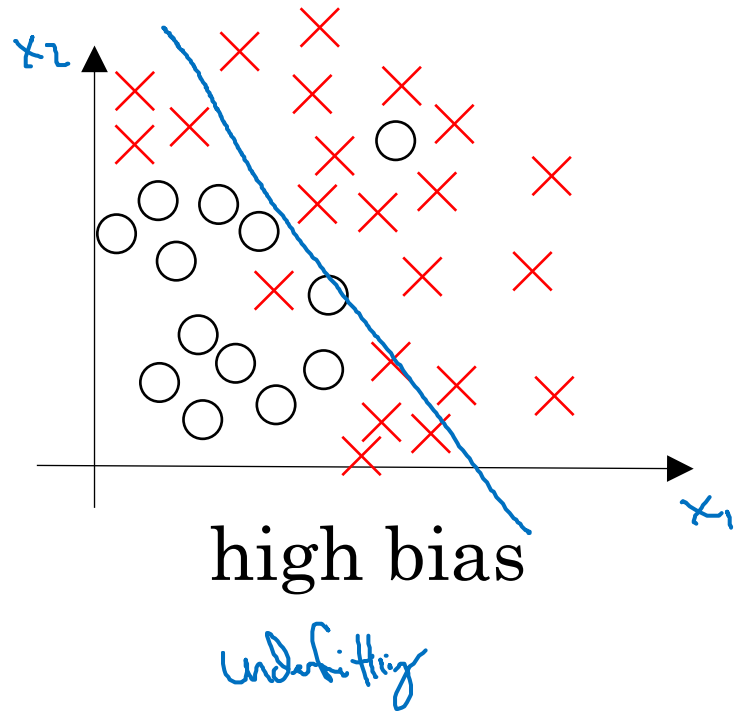
# Bias and Variance

## Cat classification

y=1  y=0
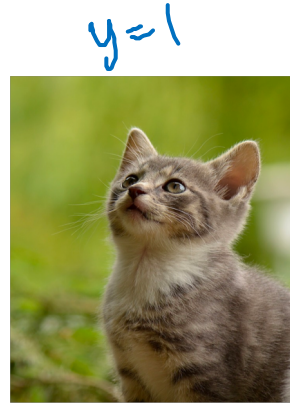


**Train set error:**

| | | | |
|---|---|---|---|
| 1% | 15% | 15% | 0.5% |
| | high variance | high bias | low bias |

**Dev set error:**

| | | | |
|---|---|---|---|
| 11% | 16% | 30% | 1% |
| | high bias | high bias & high varian | low variance |

Human: ≈ 0%

Optiml (Bayes) error: ≈ 0% to 15%

Blurry images

if you have really blurry images,
so that even a human or just no system could possibly do very well,
then maybe base error is much higher,
and then there are some details of how this analysis will change.

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# High bias and high variance



high bias
high varian

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