deeplearning.ai

Comparing to human-level performance

Improving your model performance

The two fundamental assumptions of supervised learning

1. You can fit the training set pretty well.

~ Avoidable bias

2. The training set performance generalizes pretty well to the dev/test set.

~ Variance

Reducing (avoidable) bias and variance

Human-level

↕ Avoidable bias →

Training error

↕ Variance →

Dev error

- Train bigger model
- Train longer/better optimization algorithms
  - momentum, RMSprop, Adam
- NN architecture/hyperparameters search
  - RNN
  - CNN

- More data
- Regularization
  - L_2, dropout, data augmentation
- NN architecture/hyperparameters search