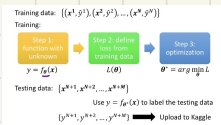




General Guidance



General Guide

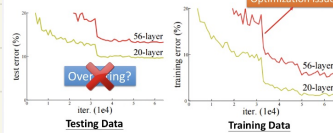
The model is too simple

solution: redesign you model to make it more flexible.

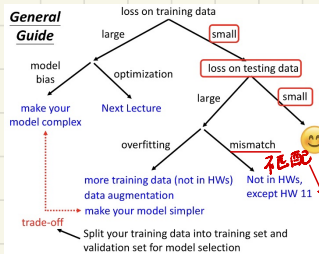
eg: $y = b + \sum c_i \text{sigmoid}(b_i + \sum w_{ij} x_{ij})$

eg:

- Diagnosis: large loss on training data, and you believe your model has sufficient flexibility (?)
- Gaining the insights from comparison

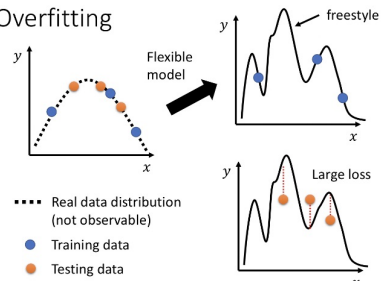


如何区分是 model bias 还是 optimization



overfitting

Overfitting



Solution: ① More training data
② data augmentation 数据增强

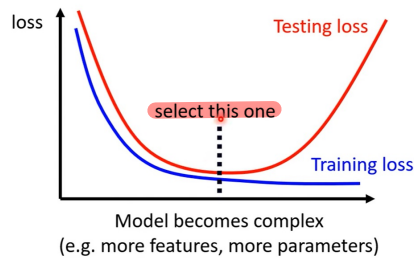
eg:



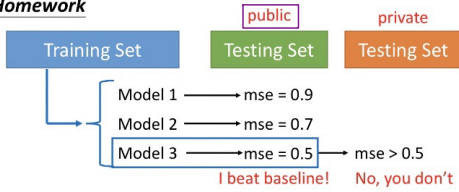
根据数据选择不同数据 augmentation

③ constrained model

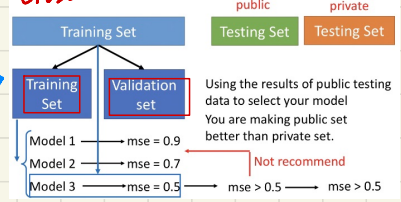
- less parameters, sharing parameters
- early stopping
- Regularization
- Dropouts



Homework



Cross Validation (交叉验证)



N-fold Cross Validation (N折交叉验证)

