Deep Learning Basic

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Chapter 2-2

Contents

Part 1. Overfitting

- Model Capacity
- Overfitting

Part 2. Data Set
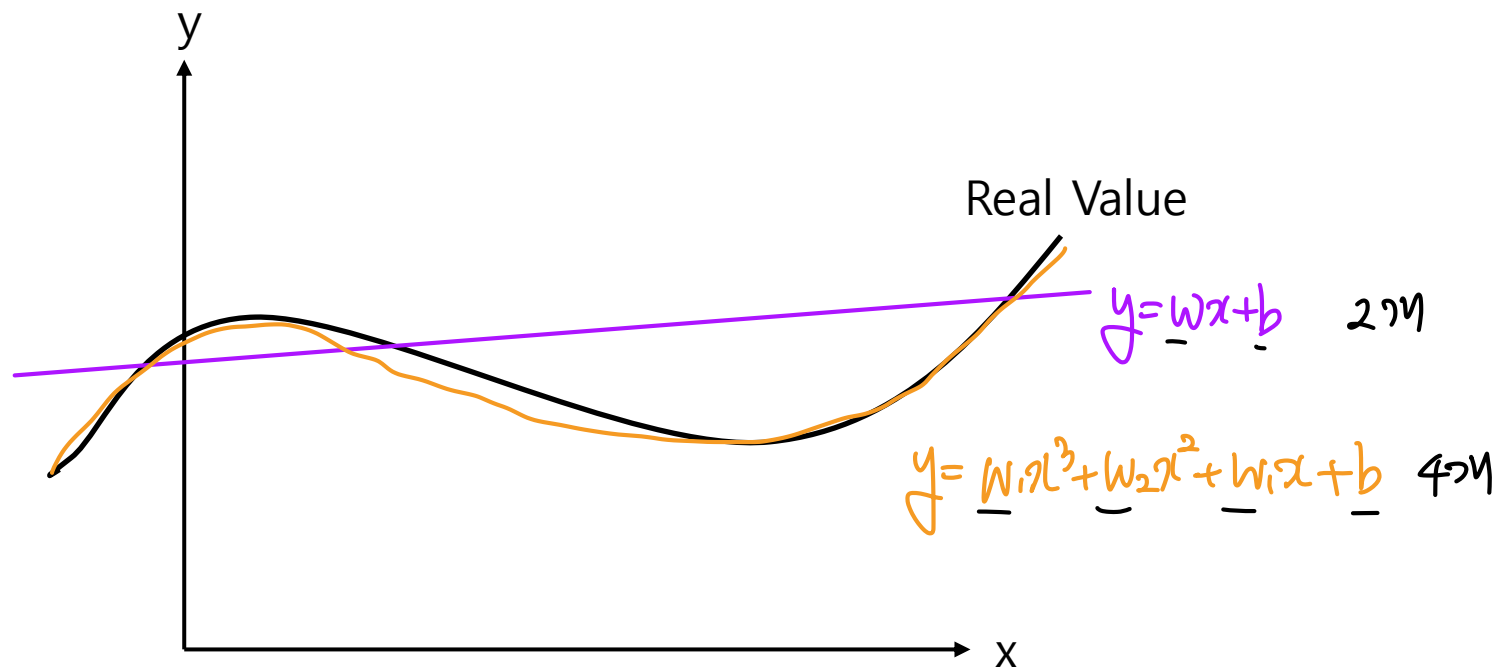
- Train, Validation, Test set
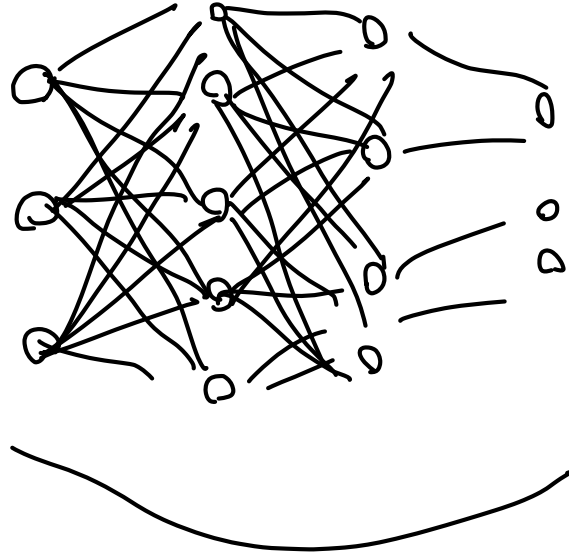
Part 3. Batch & Epoch

Part 1

Overfitting

Model Capacity

$y = \underline{w}x + \underline{b}$ 2개

$y = \underline{w_1}x^3 + \underline{w_2}x^2 + \underline{w_1}x + \underline{b}$ 4개

parameter ↑ → 복잡한 데이터 잘 예측!

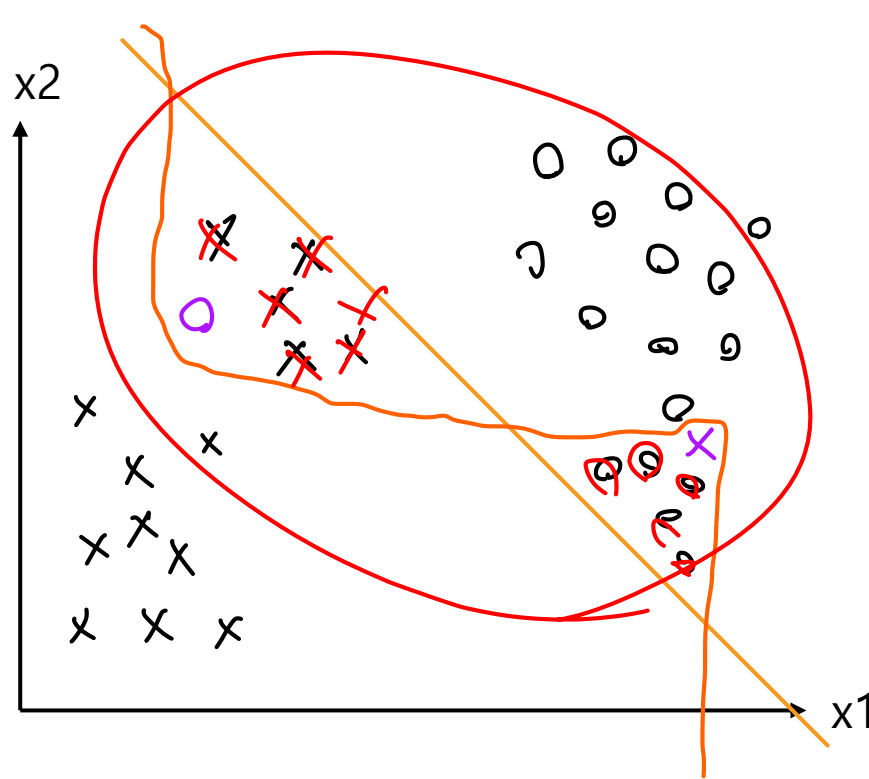# Model Capacity
- Apply to MLP

복잡한 data
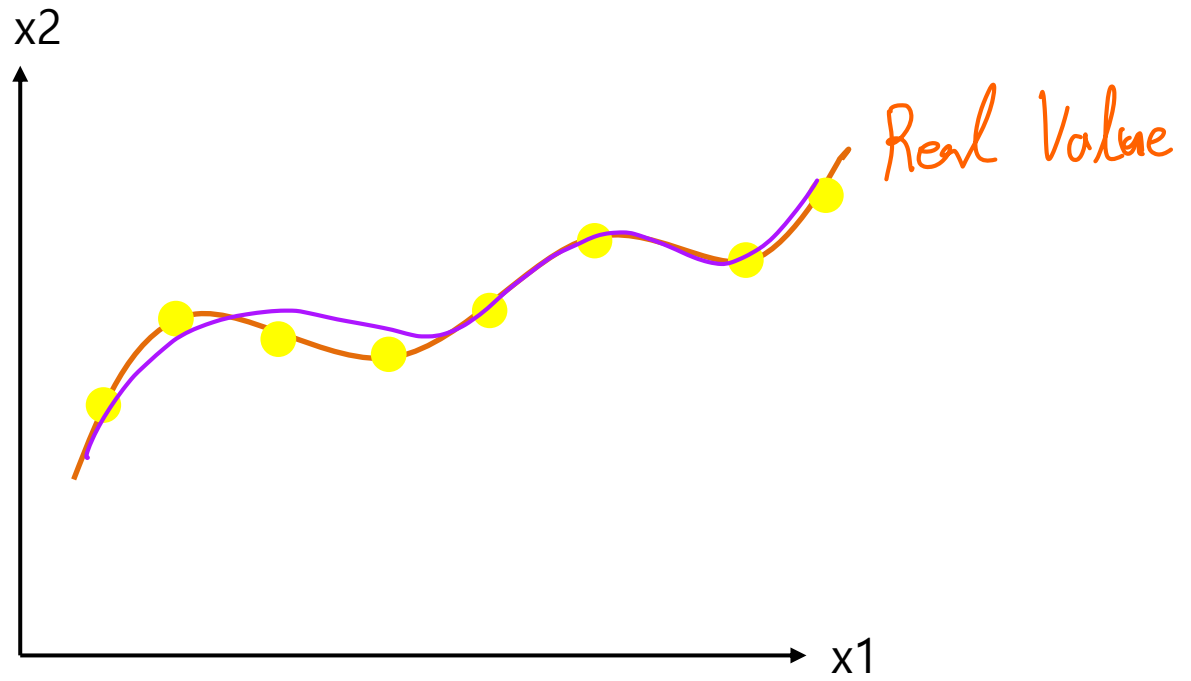
↓ 에측

Deep

layer ↑

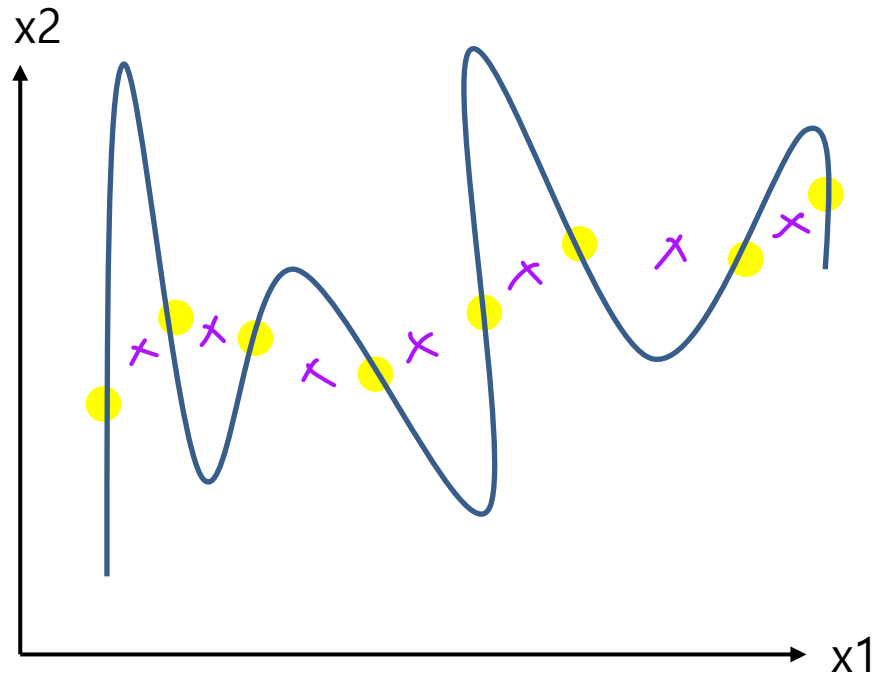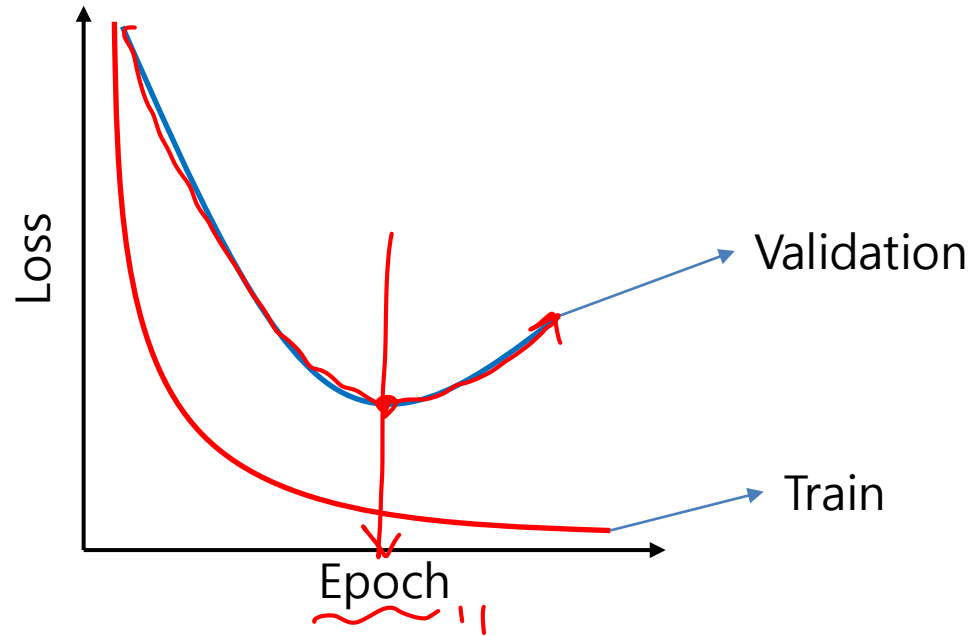hidden layer ↑

Overfitting

parameter ↑

Overfitting

Overfitting

Train, Validation, Test

8   6   [Training Set]   오직은 학습하는데만 사용하는 Dataset

(2   [Validation Set]   학습이 안로된 모델은   검증하기 위함.

1   2   [Test Set]   학습과 검증이 안로로 모델는 평가.

Batch & Epoch

Batch 오늘의 weight를 업데이트 시킬때 사용되는 샘플의 묶음.

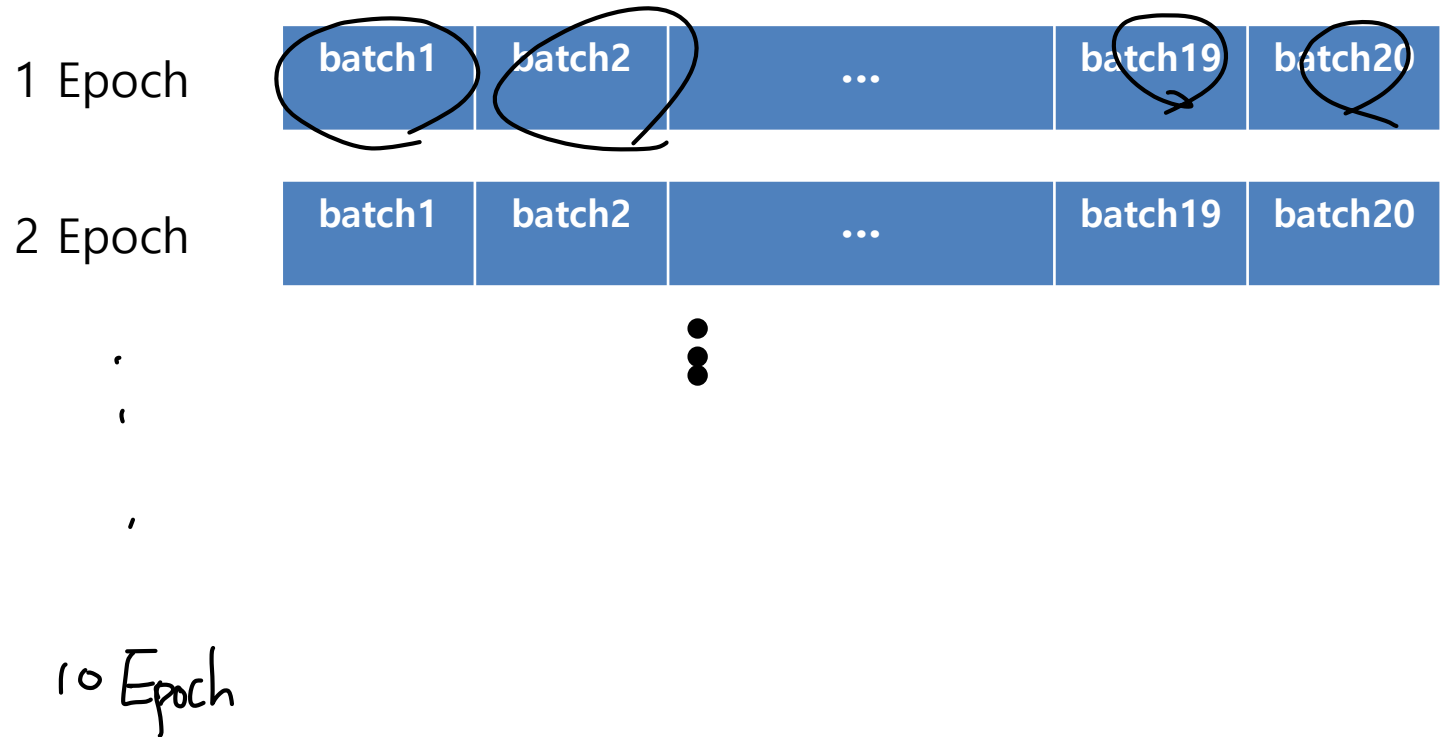ex) 1000 샘플 , Batch size = 20

20번마다 weight 업데이트

총 update : 50번.

Epoch 학습횟수.

epoch = 10 , batch = 20 ,

weight 50번 update 하는 것을 총 50번 반복.

Batch & Epoch

Ex) Epoch = 10, batch_size = 20

1 Epoch

batch1	batch2	...	batch19	batch20

2 Epoch

batch1	batch2	...	batch19	batch20

⋮

10 Epoch

Thank you..!!!