# PyTorch Week 1

Simple regression

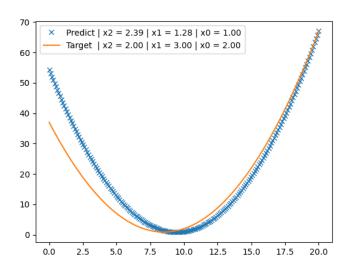
## Request

- 1. Create the function  $target = Ax^2 + Bx + C$  and  $predict = A'x^2 + B'x + C'$ .
- 2. Loss function =  $MSELoss = 0.5 * (target predict)^2$
- 3. Base on PyTorch API, let the *predict* close to *target* (*regression*).

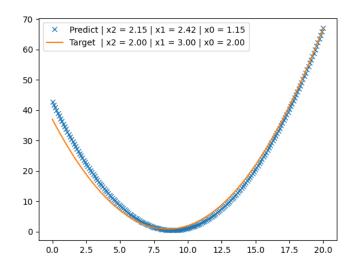
Hand on your python code before 8/1.

### Result

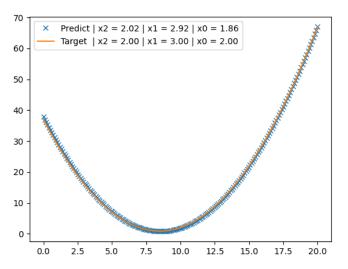
#### Regression 1 time



#### Regression 5 time



#### Regression 10 time



### Some Hints

• Calculate derivatives : .backward()

• Variables need to record the cal. Process: requires\_grad = True

• Don't forget to clear the grad after updating the parameter values or before calculating the derivatives.

#### Reference:

https://pytorch.org/tutorials/beginner/pytorch\_with\_examples.html