Deep Learning
Practice 1 – Introduction

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Pytorch

- A Deep Learning framework (sponsored by Facebook)
  - Numpy-style tensor computation with GPU acceleration
  - Auto-differentiation with dynamic graph construction
  - Python API
  - Fast, flexible, easy to learn and implement!
- https://pytorch.org/

Dynamic Graph

A graph is created on the fly

$$W_h \quad h \quad W_x \quad x$$

```
x = torch.randn(1, 10)
prev_h = torch.randn(1, 20)
W_h = torch.randn(20, 20)
W_x = torch.randn(20, 10)
```

Installation

For python 2.7 and CUDA 9.0

- pip install torch torchvision

Documentation and tutorials

- https://pytorch.org/docs

- https://pytorch.org/tutorials/