

WT assignment 1

Files: https://github.com/rppol/Web_Technology/tree/master/Practical_1

Website: https://rppol.github.io/Web_Technology/Practical_1/

Web Technology Practical 1

By: Rutik Pol, 0120180213

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Comparing Deep Learning Frameworks

Welcome


A deep learning framework is an interface, library or a tool which allows us to build deep learning models more easily and quickly, without getting into the details of underlying algorithms. They provide a clear and concise way for defining models using a collection of pre-built and optimized components.

Most popular frameworks are:

- [TensorFlow](#)
- [PyTorch](#)
- [Keras](#)

Widely used deep learning frameworks such as MXNet, PyTorch, TensorFlow and others rely on GPU-accelerated libraries such as cuDNN, NCCL and DALI to deliver high-performance multi-GPU accelerated training.


TensorFlow



Created by Google and written in C++ and Python, TensorFlow is perceived to be one of the best open source libraries for numerical computation. It just has to be good, especially if giants like DeepMind, Uber, Airbnb, or Dropbox have all decided to leverage this framework.

- TensorBoard helps in visualisation
- Tensorflow Lite enables on-device inference with low latency for mobile devices


PyTorch



PyTorch is the Python successor of Torch library written in Lua and a big competitor for TensorFlow. It was developed by Facebook and is used by Twitter, Salesforce, the University of Oxford, and many others.

- The modeling process is simple and transparent thanks to the framework's architectural style.
- It features a lot of pretrained models and modular parts that are ready and easy to combine.

Keras



This is a minimalistic Python-based library that can be run on top of TensorFlow, Theano, or CNTK. It was developed by a Google engineer, Francois Chollet, in order to facilitate rapid experimentation. It supports a wide range of neural network layers such as convolutional layers, recurrent layers, or dense layers.

- Prototyping is really fast and easy.
- It has a simplistic and intuitive interface – fantastic for newbies.

Which DL Framework do you prefer?

Select

Why (Optional):