

# Understanding Pytorch

MarktechPost



# What is Pytorch?

PyTorch is a Python package that provides two high-level features:

1. Tensor computation (like NumPy) with strong GPU acceleration
2. Deep neural networks built on a tape-based autograd system





# Installing Pytorch

You can find the binaries and installation instruction on the website: <https://pytorch.org>



- Support for NumPy-Compatible FFT operations
- Distributed training on Windows now supported
- Support for NumPy compatible Fast Fourier transforms (FFT) via torch.fft
- Updates and additions to profiling and performance for RPC, TorchScript and Stack traces in the autograd profiler
- Support for Nvidia A100 generation GPUs and native TF32 format

# Highlights of the latest version: Pytorch 1.7.0



# Applications of Pytorch



## Word-level language modeling RNN

This example trains a multi-layer RNN (Elman, GRU, or LSTM) on a language modeling task. By default, the training script uses the Wikttext-2 dataset, provided. The trained model can then be used by the generate script to generate new text.

## ImageNet training in PyTorch

This implements training of popular model architectures, such as ResNet, AlexNet, and VGG on the ImageNet dataset.

## Variational Auto- encoders

This is an improved implementation of the paper Auto-Encoding Variational Bayes by Kingma and Welling. It uses ReLUs and the adam optimizer, instead of sigmoids and adagrad. These changes make the network converge much faster.



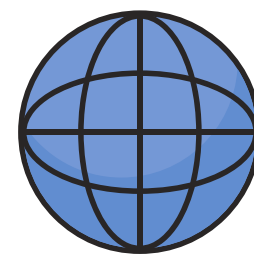
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