Computer Vision – TP15
Deep Learning Resources and Examples
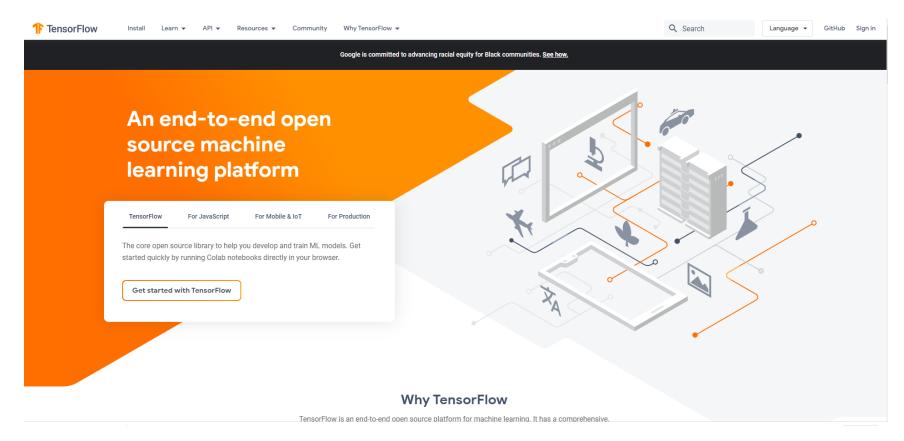
Miguel Tavares Coimbra

Outline

- Deep Learning Resources
- Examples

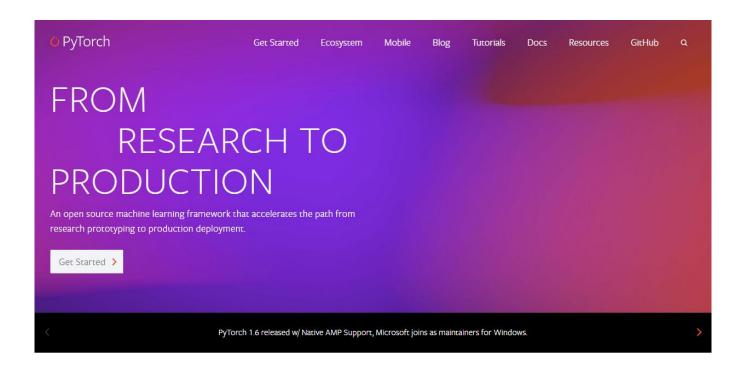# Topic: Deep Learning Resources

- Deep Learning Resources
- Examples

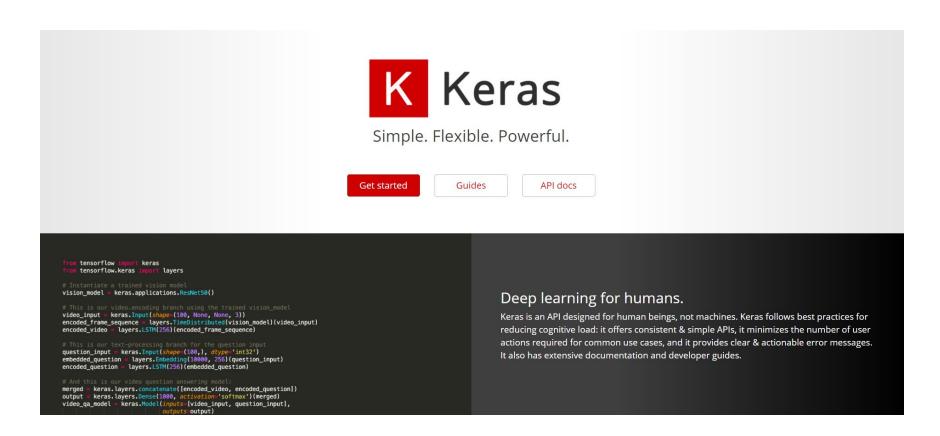# TensorFlow

https://www.tensorflow.org/

PyTorch

https://pytorch.org/

U. PORTO FC

Keras

https://keras.io/

TensorLayer

https://tensorlayer.readthedocs.io/en/stable/

Lasagne

https://lasagne.readthedocs.io/en/latest/
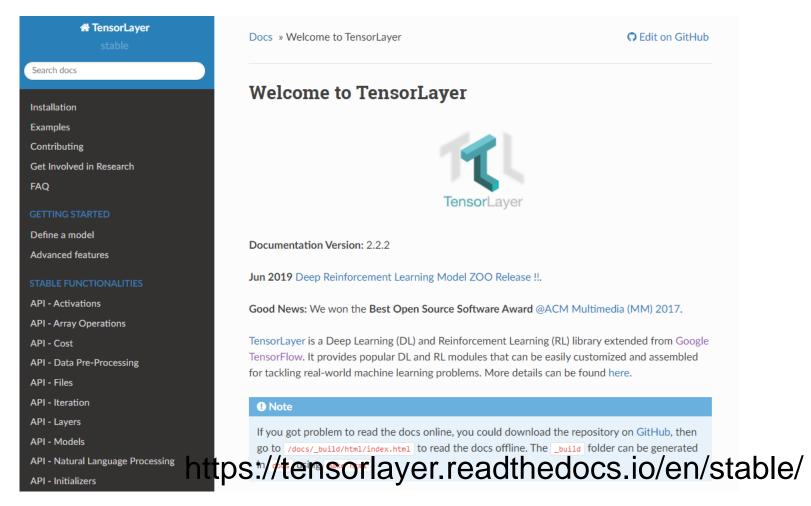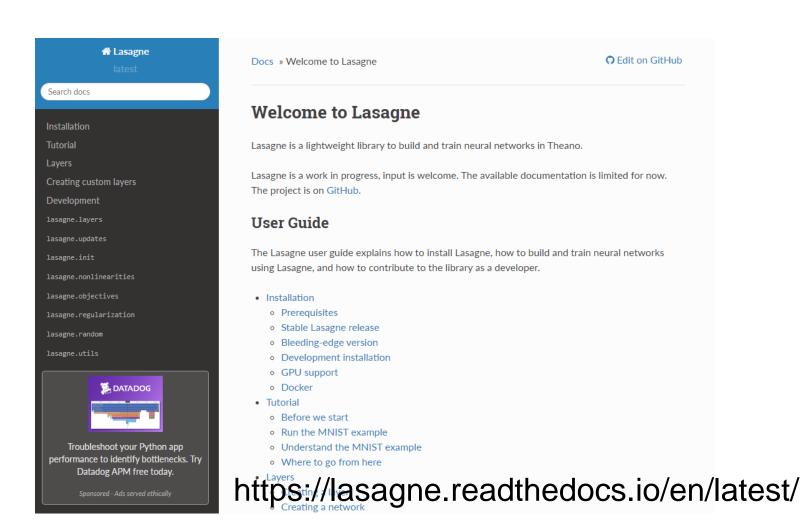
Topic: Examples

- Deep Learning Resources
- Examples

Invited Speaker

- Slides of the invited speaker

Resources

- ## Theory
  - I. Goodfellow, Y. Bengio, and A. Courville. Deep learning. Vol. 1. Cambridge: MIT press, 2016. (https://www.deeplearningbook.org/)

- ## Survey papers
  - "Deep Learning for Visual Understanding," in IEEE Signal Processing Magazine, vol. 34, no. 6, Nov. 2017.
  - A. Lucas, M. Iliadis, R. Molina and A. K. Katsaggelos, "Using Deep Neural Networks for Inverse Problems in Imaging: Beyond Analytical Methods," in IEEE Signal Processing Magazine, vol. 35, no. 1, pp. 20-36, Jan. 2018.

- ## Tutorial
  - Oxford Visual Geometry Group: VGG Convolutional Neural Networks Practical (http://www.robots.ox.ac.uk/~vgg/practicals/cnn/)