

TensorFlow For The Masses

Local Theory Data Science Meetup

Zac Slade

2019-12-12



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Python 3 Preliminaries

- PEP 8 Style Guide
<https://www.python.org/dev/peps/pep-0008/>
- Python Documentation
<https://docs.python.org/3/>



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Python 3 Preliminaries

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TensorFlow

- Main Site

<https://www.tensorflow.org/>

- Library Code

<https://github.com/tensorflow/tensorflow>

- Documentation

<https://www.tensorflow.org/overview/>



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TensorFlow

What is a Tensor?

A tensor, is an n -dimensional array of numbers.

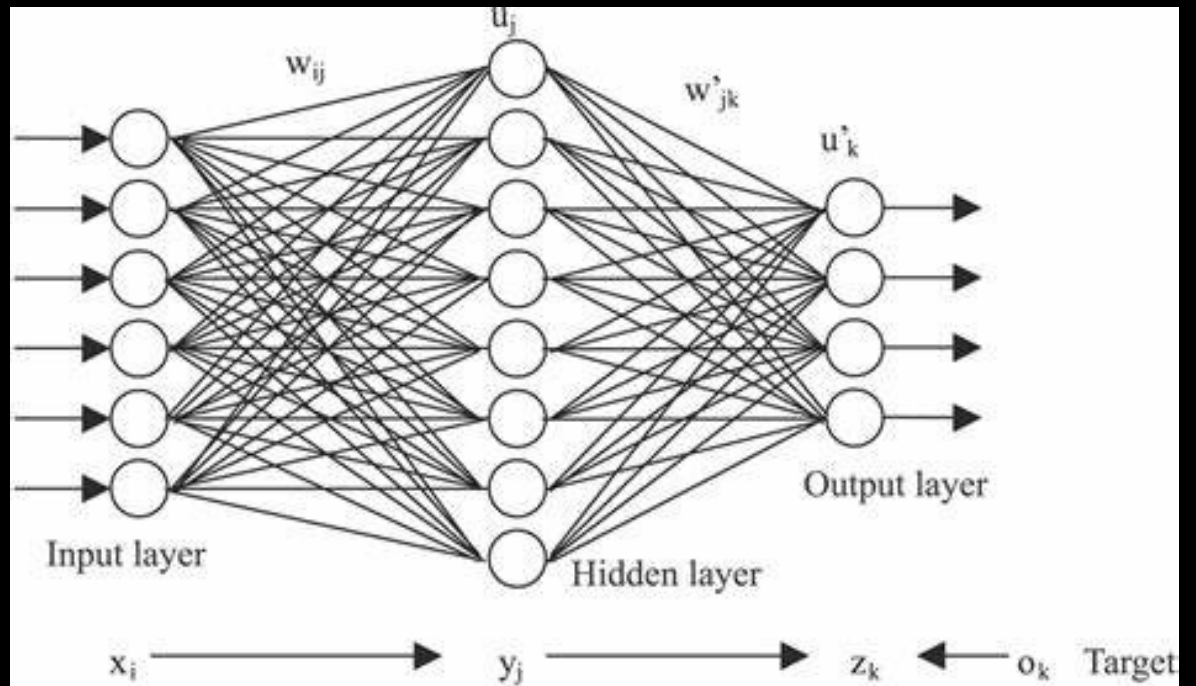
**Mathematicians, (please) don't get mad.*



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What is a Neural Network?



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What is a Model?

A model is a mathematical object which tries to represent some process in the real world.



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Keras Models

You can build models by hand, layer by layer, or you can use Keras to build models.

<https://keras.io>



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Keras Basics

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Off The Shelf Models

TF Hub

<https://tfhub.dev>

Keras Applications

<https://keras.io/applications/>



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ALBERT

A State of the Art Natural
Language Model:

**A Lite Bidirectional Encoding of
Representational Transformers**



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Thank You!

Code and Slides:

<https://github.com/krakrjak/data-science-meetup-2019-12-12>



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