Deep Learning and Temporal Data Processing

Introduction to TensorFlow

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Agenda

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Why TensorFlow

TensorFlow Basics

References

Why TensorFlow

Open source software library for numerical computation using data flow graphs.

Why TensorFlow

Why not *Theano* / *Torch* / *Caffe* / *Microsoft Cognitive Toolkit* / ... ?

- Python API
- Flexible enough for research, yet built with production use in mind
- Portable on heterogeneous systems, from mobile devices to large-scale distributed machines, and on a variety of OS (Android, Windows, iOS, ...).
- TensorBoard visualization has no rival.
- Large community and supported by Google.

Disclaimer

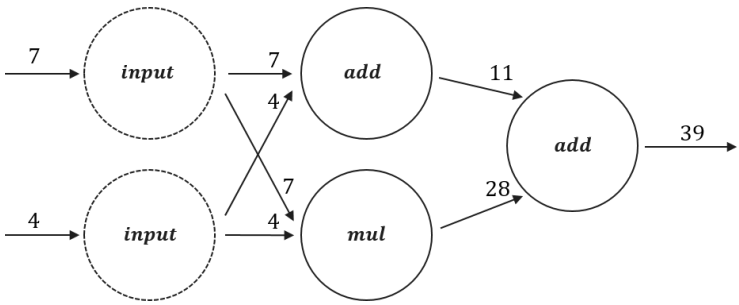
There are a variety of good resources and tutorial to learn TensorFlow.

However, please keep in mind that TensorFlow is under heavy development and is constantly changing. In case of doubt, always refer to the official site https://www.tensorflow.org.

TensorFlow Basics

Computations are encapsulated in a computational graph.

Graph definition is totally separated from execution.



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References

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