

Basic

Machine/Deep Learning

with TensorFlow (Python)

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We have superpowers



Baidu Research

Andrew Ng

GPU Technology Conference 2015 - Dr. Andrew Ng

Audience

- Want to understand basic machine learning (ML)
- No/weak math/computer science background
 - $y = Wx + b$ ($y=ax+b$)
- Want to use ML as black-box with basic understanding
- Want to use Tensorflow and Python (optional)

Goals

- Basic understanding of machine learning algorithms
 - Linear regression, Logistic regression (classification)
 - Neural networks, Convolutional Neural Network, Recurrent Neural Network
- Solve your problems using machine learning tools
 - Tensorflow and Python

Course structure

- About 10 min Lecture
- Programming tutorial using Tensorflow

Acknowledgement

- Andrew Ng's ML class
 - <https://class.coursera.org/ml-003/lecture>
 - <http://www.holehouse.org/mlclass/> (note)
- Convolutional Neural Networks for Visual Recognition.
 - <http://cs231n.github.io/>
- TensorFlow
 - <https://www.tensorflow.org>
 - <https://github.com/aymericdamien/TensorFlow-Examples>

Schedule

- Machine learning basic concepts
- Linear regression
- Logistic regression (classification)
- Multivariable (Vector) linear/logistic regression
- Neural networks
- Deep learning
 - CNN
 - RNN
 - Bidirectional Neural networks