Basic

Machine/Deep Learning

with TensorFlow (Python)

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We have superpowers
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
Next
ML basic concepts