



Overview

Week 1

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Course Info

Week 4

Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning

Week 4

Discuss this week's modules here.
653 threads · Last post 3 days ago

Go to forum

Using Real-world Images



Laurence Moroney

Last week you saw how to improve the results from your deep neural network using convolutions. It was a good start, but the data you used was very basic. What happens when your images are larger, or if the features aren't always in the same place? Andrew and Laurence discuss this to prepare you for what you'll learn this week: handling complex images!

Less

Using Real-world Images



Video: A conversation with Andrew Ng 2 min

Resume



Reading: Explore an impactful, real-world solution 10 min



Video: Understanding ImageGenerator 4 min



Reading: Designing the neural network 10 min



Video: Defining a ConvNet to use complex images 2 min



Reading: Train the ConvNet with ImageGenerator 10 min



Video: Training the ConvNet with fit_generator 2 min



Reading: Exploring the solution 10 min



Video: Walking through developing a ConvNet 2 min



Reading: Training the neural network 10 min



Video: Walking through training the ConvNet with fit_generator 3 min



Reading: Experiment with the horse or human classifier 1h



Video: Adding automatic validation to test accuracy 4 min



Reading: Get hands-on and use validation 30 min



Video: Exploring the impact of compressing images 3 min



Reading: Get Hands-on with compacted images 30 min



Quiz: Week 4 Quiz 7 questions Due Nov 30, 1:59 AM CST

Weekly Exercise - Handling Complex Images



Lab: Exercise 4 (Handling complex images) 1h




Programming Assignment: Exercise 4 (Handling complex images) 3h Due Nov 30, 1:59 AM CST




Reading: Week 4 Resources 10 min

Optional: Ungraded Google Colaboratory environment

 **Ungraded External Tool:** Exercise 4 - Handling complex images 1h

Course 1 Wrap up

 **Reading:** Wrap up 10 min

 **Video:** A conversation with Andrew 1 min

