deeplearning.ai

Overview

Week 1

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Course Info

Week 1

Convolutional Neural Networks in TensorFlow

Week 1

Discuss this week's modules here.

333 threads · Last post 4 hours ago

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Exploring a Larger Dataset

👤 Laurence Moroney

In the first course in this specialization, you had an introduction to TensorFlow, and how, with its high level APIs you could do basic image classification, an you learned a little bit about Convolutional Neural Networks (ConvNets). In this course you'll go deeper into using ConvNets will real-world data, and learn about techniques that you can use to improve your ConvNet performance, particularly when doing image classification! In Week 1, this week, you'll get started by looking at a much larger dataset than you've been using thus far: The Cats and Dogs dataset which had been a Kaggle Challenge in image classification!

⌃ Less

Introduction

▶ **Video:** Introduction, A conversation with Andrew Ng 4 min   Resume

📖 **Reading:** Before you Begin: TensorFlow 2.0 and this Course 10 min

Larger Dataset

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

📖 **Reading:** The cats vs dogs dataset 10 min

▶ **Video:** Training with the cats vs. dogs dataset 2 min

📖 **Reading:** Looking at the notebook 10 min

▶ **Video:** Working through the notebook 4 min

📖 **Reading:** What you'll see next 10 min

▶ **Video:** Fixing through cropping 49 sec

▶ **Video:** Visualizing the effect of the convolutions 1 min

▶ **Video:** Looking at accuracy and loss 1 min

📖 **Reading:** What have we seen so far? 10 min

▤ **Quiz:** Week 1 Quiz 8 questions   Due Nov 9, 1:59 AM CST
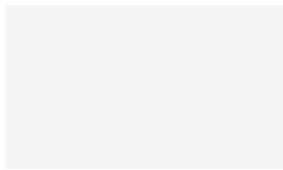
▶ **Video:** Week 1 Wrap up 33 sec

Weekly Exercise- Attempt the cats vs. dogs Kaggle challenge!

▢ **Lab:** Exercise 1 - Cats vs. Dogs 1h

</> **Programming Assignment:** Exercise 1 - Cats vs. Dogs 3h   Due Nov 9, 1:59 AM CST

Optional: Ungraded Google Colaboratory environment

Ungraded External Tool: Exercise 1 - Cats vs. Dogs 1h