



May 30, 2022

PRATIK YUVRAJ YAWALKAR

has successfully completed

Convolutional Neural Networks in TensorFlow

an online non-credit course authorized by DeepLearning.AI and offered through Coursera

A handwritten signature in blue ink that reads 'Laurence Moroney'.

Laurence Moroney  
Lead AI Advocate, Google


COURSE  
CERTIFICATE




Verify at:  
<https://coursera.org/verify/X7B8PCZ8FAY4>

Coursera has confirmed the identity of this individual and their  
participation in the course.

# Grades

 You have completed all of the assignments that are currently due.

 You passed this course! Your grade is 100%.

Item	Status	Due	Weight	Grade
 <a href="#">Week 1 Quiz</a> Quiz	Passed	May 23 12:29 PM IST	5%	100%
 <a href="#">Cats vs Dogs</a> Programming Assignment	Passed	May 23 12:29 PM IST	20%	100%
 <a href="#">Week 2 Quiz</a> Quiz	Passed	May 30 12:29 PM IST	5%	100%
 <a href="#">Cats vs Dogs with Data Augmentation</a> Programming Assignment	Passed	May 30 12:29 PM IST	20%	100%
 <a href="#">Week 3 Quiz</a> Quiz	Passed	 Jun 6 12:29 PM IST	5%	100%
 <a href="#">Transfer Learning - Horses vs Humans</a> Programming Assignment	Passed	 Jun 6 12:29 PM IST	20%	100%
 <a href="#">Week 4 Quiz</a> Quiz	Passed	Jun 13 12:29 PM IST	5%	100%
 <a href="#">Classification: Beyond two classes</a> Programming Assignment	Passed	Jun 13 12:29 PM IST	20%	100%

# Convolutional Neural Networks in TensorFlow




Completed by **PRATIK YUVRAJ YAWALKAR**

May 30, 2022

4 weeks of study, 4-5 hours/week

Grade Achieved: 100%

PRATIK YUVRAJ YAWALKAR's account is verified. Coursera certifies their successful completion of [Convolutional Neural Networks in TensorFlow](#)

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# Convolutional Neural Networks in TensorFlow

by DeepLearning.AI



Congratulations on getting your certificate!

You completed this course on May 30, 2022

Grade received: 100%



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You've completed the Convolutional Neural Networks in TensorFlow specialization! Based on the skills you learned, you may find these courses helpful



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Sequences, Time Seri...

DeepLearning.AI

☆☆☆☆☆



Network Security & Da...

IBM

☆☆☆☆☆

## Instructor's Note

Dismiss ✕



Laurence Moroney

Welcome to Convolutional Neural Networks in TensorFlow! You're joining thousands of learners currently enrolled in the course. I'm excited to have you in the class and look forward to your contributions to the learning community. To begin, I...

▼ More



Week 1



Week 2



Week 3



Week 4



Do you want to receive emails from DeepLearning.AI?

Yes ☒ ✕

# Programming Assignment: Cats vs Dogs

✔ Passed · 100/100 points

## First programming assignment

This is your first programming assignment for this course.

[Learn more](#)

[Dismiss](#) 

**Deadline** The assignment was due on May 23, 12:29 PM IST  
You can still pass this assignment before the course ends.

[Instructions](#)

[My submissions](#)

[Discussions](#)


***NOTE: The graders for all assignments in this course were updated last April 29, 2022. If you started working on this assignment before that date, please re-open the notebook from the assignment link below and paste your solutions there. Then please download and submit that newer notebook instead. That will ensure that your work is properly graded. Thank you!***

This week you explored a reduced version of the Cats v Dogs dataset and used it to train a convolutional neural network. You saw that it overfit very quickly, despite great results with the training set. One solution to overfitting is to use more data for both training and validation, and that's this week's exercise -- to build a classifier using the full Cats v Dogs dataset of 25k images!

Note again that when loading the images, you might get warnings about EXIF data being missing or corrupt. Don't worry about this -- it is missing data in the images, but it's not visual data that will impact the training.

# Week 1 Quiz

Quiz • 30 min

 **Submit your assignment**

[Try again](#)

**Due** May 23, 12:29 PM IST **Attempts** 3 every 8 hours

 **Receive grade**

**To Pass** 80% or higher

**Your grade**

100%

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# Programming Assignment: Cats vs Dogs with Data Augmentation

✓ Passed · 100/100 points

**Deadline** The assignment was due on May 30, 12:29 PM IST  
You can still pass this assignment before the course ends.

**Instructions**

My submissions

Discussions

Now that you've seen Image Augmentation in action, it's time to go back to the Cats v Dogs full Kaggle Challenge exercise. Last week you built a classifier for Cats v Dogs and trained it for a few epochs. This week I want you to add Augmentation to it, and experiment with different parameters to avoid overfitting. This will likely take a lot of time -- as it requires using the full dataset along with augmentation code to edit the data on-the-fly. The opportunity here is to try hard to get into State-of-the-Art type classification. Experiment with different images it hasn't before seen, and see if you can get it to correctly classify them! For a particularly challenging image, see if you can get it to classify this one correctly: <https://pixabay.com/photos/bed-dog-animals-dogs-pets-relax-1284238/>


Lets now build the Cats vs. Dogs classifier using augmentation!

Complete the tasks in the [assignment notebook](#) and upload the relevant files here for grading.

**This notebook is hosted on github so in order to save any changes you need to create a copy of it within your Drive. You can do so by clicking the `File` tab and then the `Save a copy in drive` option.**

# Week 2 Quiz

Quiz • 30 min

 **Submit your assignment**

[Try again](#)

**Due** May 30, 12:29 PM IST **Attempts** 3 every 8 hours

 **Receive grade**

**To Pass** 80% or higher

Your grade

100%

[View Feedback](#)

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# Programming Assignment: Transfer Learning - Horses vs Humans

✔ Passed · 100/100 points

**Deadline** Pass this assignment by Jun 6, 12:29 PM IST

**Instructions**

My submissions

Discussions

This week your exercise will be to apply what you've learned about Transfer Learning to see if you can increase training accuracy for Horses v Humans. To avoid crazy overfitting, your validation set accuracy should be around 95% if you do it right!

Your training should automatically stop once it reaches this desired accuracy.

Let's now use Transfer Learning to increase the training accuracy for Horses v Humans!

Complete the tasks in the [assignment notebook](#) and upload the relevant files here for grading.


**This notebook is hosted on github so in order to save any changes you need to create a copy of it within your Drive. You can do so by clicking the `File` tab and then the `Save a copy in drive` option.**

You should upload one file:

- The notebook (a file with `.ipynb` extension) which will be used to test the following functions:

# Week 3 Quiz

Quiz • 30 min

 **Submit your assignment**

[Try again](#)

**Due** Jun 6, 12:29 PM IST **Attempts** 3 every 8 hours

 **Receive grade**

**To Pass** 80% or higher

**Your grade**

100%

**View Feedback**

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# Programming Assignment: Classification: Beyond two classes

✔ Passed · 100/100 points

**Deadline** Pass this assignment by Jun 13, 12:29 PM IST

[Instructions](#)

[My submissions](#)

[Discussions](#)

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Now that you've explored the concepts behind going from binary classification to multi class classification, it's time for another Exercise. In this one you'll use the Sign Language dataset from <https://www.kaggle.com/datamunge/sign-language-mnist>, and attempt to build a multi-class classifier to recognize sign language!


Let's build a multi-class classifier to recognize sign language!

Complete the tasks in the [assignment notebook](#) and upload the relevant files here for grading.

**This notebook is hosted on github so in order to save any changes you need to create a copy of it within your Drive. You can do so by clicking the `File` tab and then the `Save a copy in drive` option.**


# Week 4 Quiz

Quiz • 30 min

 **Submit your assignment**

[Try again](#)

**Due** Jun 13, 12:29 PM IST **Attempts** 3 every 8 hours

 **Receive grade**

**To Pass** 80% or higher

**Your grade**

100%

**View Feedback**

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