

# DeepLearning.AI TensorFlow Developer Professional Certificate

by DeepLearning.AI

**Course #1 Introduction to  
TensorFlow for Artificial  
Intelligence, Machine Learning, and  
Deep Learning**



[Course Site](#)

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# Summary

## Week 1: A new programming paradigm

Welcome to this course on going from Basics to Mastery of TensorFlow. We're excited you're here! In week 1 you'll get a soft introduction to what Machine Learning and Deep Learning are, and how they offer you a new programming paradigm, giving you a new set of tools to open previously unexplored scenarios. All you need to know is some very basic programming skills, and you'll pick the rest up as you go along. You'll be working with code that works well across both TensorFlow 1.x and the TensorFlow 2.0 alpha. To get started, check out the first video, a conversation between Andrew and Laurence that sets the theme for what you'll study...

## Week 2: Introduction to Computer Vision

Welcome to week 2 of the course! In week 1 you learned all about how Machine Learning and Deep Learning is a new programming paradigm. This week you're going to take that to the next level by beginning to solve problems of computer vision with just a few lines of code! Check out this conversation between Laurence and Andrew where they discuss it and introduce you to Computer Vision!

## Week 3: Enhancing Vision with Convolutional Neural Networks

Welcome to week 3! In week 2 you saw a basic Neural Network for Computer Vision. It did the job nicely, but it was a little naive in its approach. This week we'll see how to make it better, as discussed by Laurence and Andrew here.

## Week 4: Using Real-world Images

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!

## Week 1: A new programming paradigm