

Day 22 Artificial Neural Networks 2

Dec 3, 2020



Announcements

- **Homework 5** Working with Tensorflow. Due this Friday. This is the last homework assignment!
 - Having trouble installing tensorflow? Use Google Colab (just upload your notebook).
- **Projects** Rubric posted to D2L.
 - Due Dec 14th; Review 3 projects by Dec 16th
 - 8-10 minute video presentation + documented notebook on your analysis
 - 3 In-class work periods for the project

Calendar

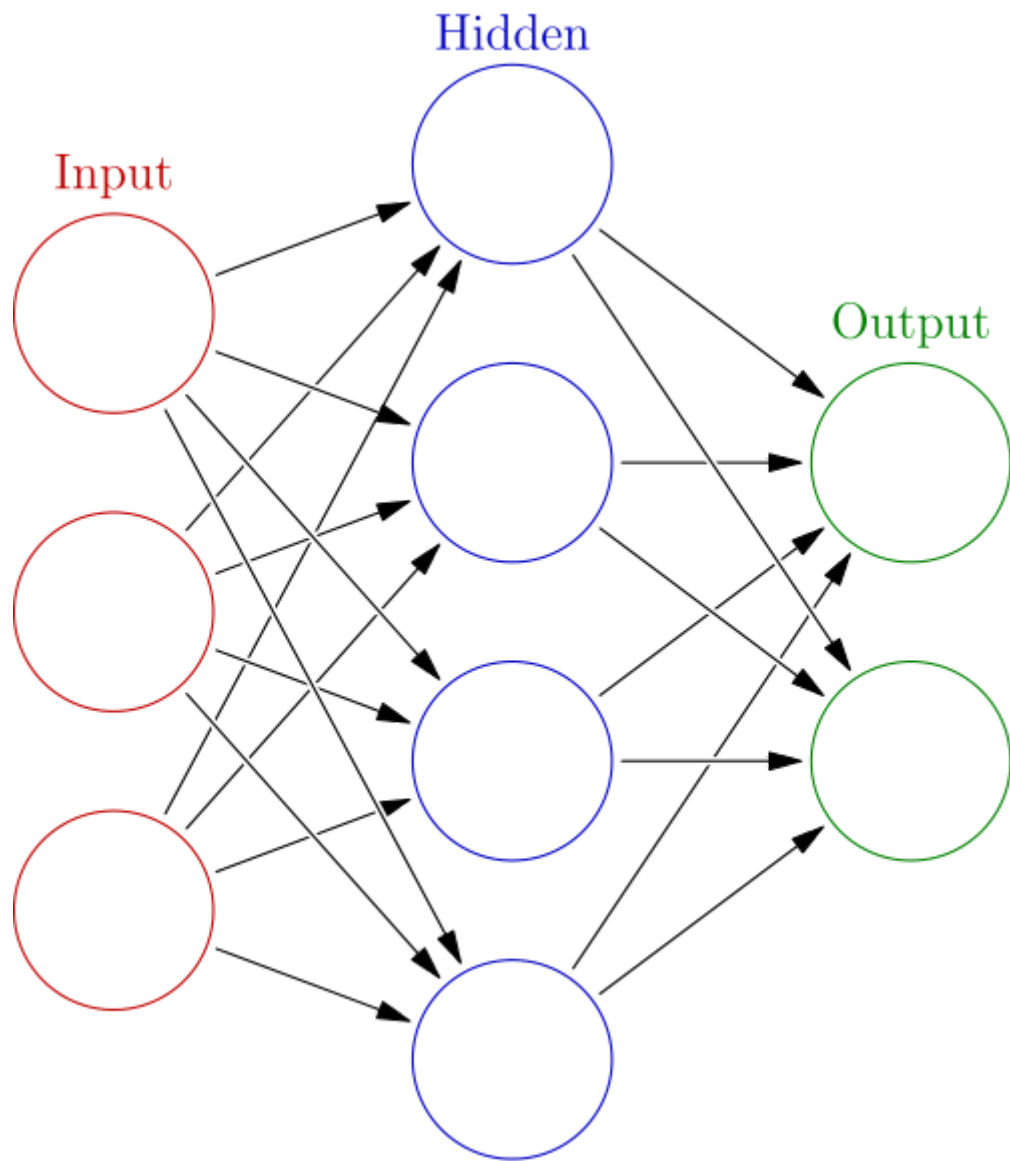
This week

- Thursday 12/3: Day 21 Neural Networks 2

Last week of classes

- Tuesday 12/8: Project work day 3
- Thursday 12/10: Project work day 4

Artificial Neural Networks



Today

- We are going to work with a [code base](#) that implements a Neural Network class.
- You will make some changes to the code base to make it more general.
- You and your groups will need to read through the code base to understand how it works.

Let's go over the pre-class

Assume you have a set of feature (`features`) and labels (`labels`).

Using this code base, we will create a Neural Network instance.

```
NN = Neural_Network()
```

We can then perform forward propagation using the `.forward` method.

```
NN.forward(features)
```

Note: For the existing code base, the Neural Network class has specified values for input layers, hidden layers, and output layers.

How do we train a model?

Again, assume you have a set of feature (`features`) and labels (`labels`).

Using this code base, we will create a trainer instance.

```
T = trainer(NN)
```

We can then train the model on our data using the `.train` method.

```
T.train(features, labels)
```

Note: You need to pass the Neural Network instance to create a trainer instance.

Questions, Comments, Concerns?