Homework 4

# Instructions

Most homework assignments for this class will consist of two tasks:

1. **Reading&Video**: This will be an article or video about a topic in machine learning related to what we have learned so far in the class. After you read the article or watch the video, we will ask you to answer some comprehension questions (typed or handwritten responses are fine), which will relate to the class content, coding activity, and/or to the reading/video. We will start off class next week by discussing these comprehension questions (remind us if we forget!)
2. **Coding**: There’s no coding this week! ☺

# Reading

Read this Medium post on the state of the art in machine learning in 2017. Don’t worry about understanding all of the words – there’s lots of jargon in the field!

<https://medium.com/@NathanBenaich/6-areas-of-artificial-intelligence-to-watch-closely-673d590aa8aa>

# Video

Watch this video on body estimation with machine learning. <https://www.youtube.com/watch?v=pW6nZXeWlGM>

## Comprehension Questions

1. In machine learning, often many different problems have to be solved, one step at a time. In the attached video, they were able to predict the movements of multiple people in a video frame. On a broad level what would be the steps of problems that would have to be solved in order to do this? In other words, if one machine learning task takes training data and predicts an outcome based on it, how many tasks would have to be learned here and in what order would they have to be learned and predicted? For instance, would it have to recognize an arm before recognizing that it’s attached to a person? Would it have to recognize a person before it recognizes dancing? Would it have to recognize perspectives of the floor the person is on?