

# INFO 7390

## Advances in Data Sciences and Architecture

### Assignment 3

Professor: Nik Bear Brown  
Due: July 29, 2019

In this assignment you will be explaining how a machine learning algorithm works in detail.

#### Q1 (5 Points)

Pick an algorithm that you will explain. You MUST post on piazza and the TA MUST approve your choice. No two students can choose the same algorithm.

Explain what the algorithm is used for.

#### Q2 (45 Points)

Explain the mathematics behind the algorithm in detail. This should NOT be a hand wavy vague explanation.

How fast does it run?

Will scaling effect it.

Explain the equations.

#### Q3 (35 Points)

Show an example in code of the algorithm working on a real data set. This must be in a notebook and must run.

#### Q4 (10 Points)

*Did I explain my idea clearly overall?* (How effective are you at explaining what you are doing?)

#### Q5 (5 Points)

Citations. ALL sources MUST be cited.