# CTEC 126 spring 2019 - Final Project, or Rabbit Hole #69

## Bruno George

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## Specifications:

The goal of this project is to demonstrate client-side Machine Learning using the [TensorFlow.js](https://www.tensorflow.org/js/) JavaScript library. It will allow the user to choose from one of three datasets, the size of the training set, then present the results of from the learning with a graphically rich and textural report.

The project will have a strong educational focus, giving the user insight on what Machine learning is, how it is preformed, and what can be learned from the Artificial Intelligence/Machine Learning approach to data processing.

The datasets will come from the [UCI Machine Learning Repository](http://archive.ics.uci.edu/ml/datasets.php) or data that I’ve generated on my own. This part I’m not sure about yet. Ideally, the datasets for this project this project should be in a database on a server somewhere and processed on the server side with the user getting the report of the results on the client side. However, that is beyond the scope of this class and my skillset to complete in three weeks. Thus, the datasets will be local to the project, either in a folder named “datasets” or on a localhost

The layout of the pages will use Bootstrap. Graphics will be generated with the [tfjs-vis](https://storage.googleapis.com/tfjs-vis/mnist/dist/index.html) library.

Personal Note: The reason for attempting a project this complex gives me an opportunity to do what I wanted to get out of my CTEC AAT. The development of interesting ways to present difficult big data concepts to the user.

• Landing Page

The landing page will be a description of the project and the process including thumbnails of the graphics.

• About Page

The about page will be a blog post type of page focusing on definitions and a history Artificial Intelligence and Machine Learning.

• Processing Page

The processing page will be broken down into two sections. First, a description of the chosen dataset and what we will learn by processing it. The second section will be training the data in real time to give us an answer to a question with the chosen dataset.