## Project Proposal

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## 1 Dog Breed Identification

When figuring out what topic to do for my project, I decided to explore past kaggle competitions to get a few ideas. I came across a competition about identifying different breeds of dogs from images and it sparked my interest. For this project I plan on building a classifier using a Convolutional Neural Network and dog breeds. The past competition on kaggle gives me access to labeled data as well as training and testing data. To build this classifier, I would plan on doing it in Tensorflow. Here is a link to the past kaggle competition which has the data I could use to build this classifier: Dog Breed Identification. This project would fall under an algorithmic type of project. Kaggle is providing me with the problem that they would like to solve. I will then develop a new learning algorithm, or a novel variant of an existing algorithm, to solve it. This project will be difficult as I begin to learn these new topics. Since it is a previous Kaggle competition, there is access to what other people have tried to solve this problem. This will be helpful as I begin to teach myself these new ideas and try to create my own algorithm to solve this problem. In addition to these resources, I will need to do some research of my own on many of the aspects of this classifier to understand what is happening within the algorithm and how to implement it myself. This project will teach me many new things about python and Neural Networks as I have never worked with Neural Networks before and have only used python a minimal amount previous to this course.