Machine Learning Project Proposal

~ Dylan Patch ~

The Goal:

Building off my piano chord visualization project I plan to create a new view on the same site in which you can select a Key to write a chord progression in and as you select chords it uses machine learning to predict what the most likely following chords are. This functionality would allow the producer to find other natural sounding notes as a baseline to be able to build off of creatively.

Hurdles to jump:

- Lots of issues finding an applicable dataset. Think I have found one but application yet to be tested.
- Converting songs in different keys to a standard for Chord progressions. For instance C – G – Am – F is in fact the same as D – A – Bm – G (at least for our current goal) and needs to be recognized as I – V – vi – IV to be properly equated. I forsee a lot of complications dealing with this issue.
- It will need to make predictions off of 1, 2, or 3 chords. This will need to take extra focus to remain efficient with code.
- Tiered system of API makes me fear I will need more than the free tier.
- Will need to work with Heroku again…

Architecture:

Github Pages	**Heroku**
HTML	Python
CSS	Model Creation
Javascript	Model Predict Function
API Calls	