**I have provided following links as second capstone project. Since I was not sure which may be more interesting topic, I have mentioned the links. We can discuss on them on the call, and then I will narrow down them and provide some explanation for each.**

1. **Face Recognition**

With the advancement of technology and growing use of computers in our day-to-day life, itis essential to develop systems that can precisely detect and recognize human faces. We aim to propose an approach that can achieve the desired goal of face detection and identiﬁcation eﬀectively. Our objective is to make a system that will use neural algorithm to detect and identify faces and identify faces belong to same person or not.

Dataset: [face-rec.org](http://www.face-rec.org/databases/), or [facedetection.com](https://facedetection.com/datasets/)

1. **Satellite Imagery Processing for Socioeconomic Analysis**

Reliable data on economic livelihoods remain scarce in the developing world, hampering efforts to study these outcomes and to design policies that improve them. We can use these satellites images to predict any environmental or economic outcome changes like poverty in futures. We can use the data to predict what can be the poverty situation in African countries.

* Reference for Project details: [Stanford Poverty Estimation Project](http://sustain.stanford.edu/predicting-poverty/)
* <https://www.kaggle.com/c/dstl-satellite-imagery-feature-detection>
* <https://gisgeography.com/free-world-climate-data-sources/>
  + <https://sedac.ciesin.columbia.edu/data/sets/browse?sort=data-date-published-year%3Aasc&facets=theme%3Aclimate&contains=>

#### Music dataset:

#### Companies nowadays use music classification, either to be able to place recommendations to their customers (such as Spotify, Soundcloud) or simply as a product (for example Shazam). Determining music genres is the first step in that direction. we can study how to analyses an audio/music signal and then utilize the skills learnt to classify music clips into different genres and the determine what genre the music is, whether it is classic or not.

* [AudioContentAnalysis nearly exhaustive list of music-related datasets](http://www.audiocontentanalysis.org/data-sets/)
* [Teaching MIR](https://teachingmir.wikispaces.com/Datasets)
* [Wikipedia's list of datasets for machine learning research](https://en.wikipedia.org/wiki/List_of_datasets_for_machine_learning_research#cite_ref-215)
* [Datasets for deep learning](http://deeplearning.net/datasets/)
* [Awesome public datasets](https://github.com/caesar0301/awesome-public-datasets)
* [Awesome music listening](https://github.com/ybayle/awesome-music-listening)
* <https://freemusicarchive.org/>