

Daily Log

Monday September 9

Began looking for a better OCR library for better recognition of text on food boxes. Looked at various lists and videos comparing libraries.

Tuesday September 10

Found an online library called OCR Space, which is web based. Tested library on a couple of images, and it performed better than Tesseract on various cases, however still wasn't too reliable.

Worked on trying to set up OCR space API for local machine (not through the web browser). Worked to some extent.

Decided against using OCR space, because first off, the API was not too straightforward to use. In addition, it also costs money after a certain number of API calls, and limits the number of API calls that can occur at a certain time.

Thursday September 12

Began implementation of Mr. White's idea of using a logo recognition API as opposed to a text recognition API for the food box covers.

Researched different libraries/API's, and after consideration decided to try and work with the Google Cloud Vision API for logo detection.

Began work on setting up Cloud Vision API on my personal computer.

Timeline

Date	Goal	Met
8/29/19	Become familiar with syslab, talk about resources with Mr. White, and begin project	Yes; Talked to Mr. White about cameras in Syslab (decided to work on this part of project later and focus on software now. Began looking at libraries, etc.
9/5/19	Be able to achieve basic text recognition and detection	Yes; Able to locate portions of text on certain pictures of food and read nutrition labels quite successfully
9/12/19	Find a way to get reliable text reading (OCR) for food products and perform shape recognition (can, box, etc.)	No; Minimal successful results in identifying food products based on a picture. Shape recognition not attempted.
9/19/19	Successfully set up Google Cloud Vision API to be able to successfully identify food products by logo	
9/26/19	Work on implementing barcode recognition using a barcode recognition API and start working on shape recognition	

Reflection

This week was not as successful as last week in terms of completing goals. I believe that this is partly because I set my goals too high due to the quick success I initially achieved. My setback from last week as not been solved yet, as I did not get good results for food product identification. I believe Mr. White's idea of using logo recognition as opposed to text recognition has strong potential, so I will be working on that next week. I have also adjusted my goals to some that I feel now are more achievable compared to the ones I set last week. I hope to be done with the problem of food recognition by logo next week, which will be good, because this will really help me in the long run (it is perhaps the most important identifying feature after a barcode).