

Daily Log

Monday October 7

Searched more for shape detection libraries, comparing the advantages and disadvantages of each type.

Decided on using OpenCV with module 'imutils' for shape detection.

Tuesday October 8

Worked on implementing shape detection system.

Encountered some issues on certain libraries not being installed. Worked to resolve these issues, and the main problem was that the guide I was following referenced some unneeded outside commercial libraries, but I was able to avoid having to implement these, and was able to get the system up and running.

Tested implementation of shape detection system on various pictures of shapes, with varying results - decided current implementation of shape detection was fine for now, based on results achieved.

Thursday October 3

Tried testing shape detection library on food pictures, but did not achieve very good results.

Concluded that the reason I wasn't getting good results on shape detection on food pictures was because my shape detection was implemented for 2D shapes, whereas for my purposes (helping to identify foods) I would need 3D shape detection.

Begin looking into 3D shape detection libraries.

Started linking up barcode detection and logo detection libraries into one system that process images simultaneously - didn't have too much time to work on this, so will work more on this next week.

Timeline

Date	Goal	Met
9/26/19	Finalize Cloud Vision to be able to identify major logos and begin implementation of barcode API	Yes; Both Cloud Vision and barcode API successfully implemented.
10/3/19	Work with Mr. White to try and crack credential issues and be able to finalize Cloud Vision API	Yes; Cloud Vision API credential issue solved and Cloud Vision API finalized
10/10/19	Decide on a shape recognition library and implement it to be able to perform basic shape recognition	Yes; Shape recognition system implemented and basic shape recognition on 2D shapes achieved
10/17/19	Perform more advanced shape recognition (3D shapes) and link logo detection, barcode detection, and shape detection API's	
10/24/19	Link shape detection library to barcode/logo system and look into a lookup database/library where all the inputs can be supplied and the product can be identified	

Reflection

This week was quite successful, as I was able to completely set up basic shape recognition in one week. However, the shape recognition is not as advanced as I would like it to be, because right now it only does 2D detection, so I will need to begin looking into 3D shape detection libraries, which will likely be harder. I was also able to move a little bit ahead in my goals for next week, as I decided to start linking the barcode and logo detection libraries this week as opposed to next, and I think I will be able to have them completely linked by next week. In total, I think I'm looking in good shape for where I would like to be for my project and that I'm moving at a good pace.