Sean Yang

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Journal Report 1

I researched about the main problems about my project. “Pixel-based distances on high-dimensional data (and images especially) can be very unintuitive.” according to Stanford machine learning course. There was an example that uses pixel based KNN sees the original image to be as close to a shifted, darkened, and completely messed up face. I can solve the shift and darkness issue by only tracking feature points using library. However, slightly tilted face can be a major challenge for the classification. You can’t expect the person to always sit in same angle or never move their faces. I researched about ways to solve it. I did explore the possibilities I can do. I added the potential of using warp perspective to correct the face so we can compare them in a parallel plane after discussing with Dr. Zacharias. I looked at some examples of warp perspective on youtube. It seems to work really well with flat surfaces. If the feature points extracted are fairly flat, this probably will work. I also prepared libraries I need: dlib and opencv. I learned some basic universal rules during other people’s presentation: don’t distract others from the presentation, finish on a high note, use humor, and try not to play with our hands or move around. I changed my original pitch so I skipped over the technical details and mentioned more about why I came up with the idea and the impact the project has. Next week, I will work on loading images and extract key points using dlib and opencv.