Fall 2014 Research Plan

1.) Write a brief outline of your research plan:

   The goal is to extract facial features in a picture or video, correlate these features to data regarding human-perceived notions of what is considered attractive (or any other attribute that people consider likeable in a picture), and then using machine learning methods and data analysis to determine the optimal viewing angle of a person’s face.

   **Obtaining the Data:**
   - Based on data from various academic papers and maybe even an experiment generated by me, I will determine what kinds of personality traits or emotional states the general public finds the most attractive

   **Analyzing the Data:**
   - Based on the 3D poses expressed in terms of pitch, yaw, and roll from these samples, I will find a range of optimal values of viewing angles based on the pitches, yaws, and rolls that are desirable in the collected data

2.) What do you hope to learn and achieve by the end of the semester?

   I hope that by the end of the semester, I can become more familiar with techniques in image processing, data analysis, and machine learning. Additionally, I want to be proficient with software that deals with Computer Vision, namely OpenCV.

   By the time of the PURE Symposium, I plan on being able to obtain a presentable method to determine optimal viewing angles of a person in a picture and possibly to have a user interface that implements these learning methods.