# INFO 5871 Project Progress Report

Fall 2019

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| **Student names:** | Keke Wu |
| **Date:** | Dec 1 2019 |
| **Project description (50-100 words):** | In the research project *Color Crafting* I’ve been part of, we built two different machine learning models (k-means & Bayesian) to automate the color ramp generation, and compare the ramps generated by these models in terms of both their functionality as well as aesthetics with the original designer crafted color ramps collected from online resources and linear interpolated color ramps. We designed an experiment and recruited professional designers across the world to finish our tasks. In the experiment, each participant went through multiple trials, and their response time, accuracy, and demographic information were uploaded to the database. For the final project, I will explore this dataset and report the result of our study. |
| **PROGRESS SO FAR:** In the space below, describe your progress on the project so far. What concrete milestones have you achieved? (max 250 words) | |
| 1. Dataset: The datasets are currently in place, with the response data and demographics datastores as separate csv files in the web server. The schema for the database are as follows:  **Response Data**  A screenshot of a cell phone  Description automatically generated  **Demographic Data**  A screenshot of a cell phone  Description automatically generated  2. Initial Analysis: The initial statistical analysis suggested that our model performed as good as designer ramps in terms of accuracy and better than linear color ramps in terms of aesthetics.  A screenshot of a cell phone  Description automatically generated | |
| **CHALLENGES:** In the space below, describe any obstacles or challenges that you have faced in making progress on the project so far (max 250 words) | |
| Although this is a visualization research project and we will probably create a color picker tool as our final deliverable, there aren’t many visuals at this point in terms of statistical analysis other than the hard statistics to describe the accuracy and aesthetic scores of the four different models.  Depending on the initial questions I was interested here, 1. What is the relationship between years of design experience and the tendency on aesthetic rating? 2. How do different models perform in terms of accuracy and aesthetics? I’ll need to figure out a better way to organize my questions to form a better narrative and visualize these results. | |
| **CHANGES:** Are you planning to adjust the direction, topic or scope of your project from the initial proposal? If so, describe the differences between your current ideas and where you started. (Note that if the changes are substantial, I may ask you to complete a revised project proposal.) (max 100 words) | |
| No substantial change but still need to add more questions and diversify the statistical analysis technique to develop a better story. | |
| **PROJECT PLAN:** You have two weeks from the due date of this report until you will be presenting to the class, and 18 days until the final report is due. In the space below, list the milestones that will be accomplished until the completion of the final report. | |
| Milestone 1 (Dec7): Finalize the questions around the dataset and form a complete narrative, decide on the specific statistical analysis techniques to use. Run initial analysis and see how things work.  Milestone 2(Dec14): Finish all analysis and add on other pieces that may help make the story flow better if there is any. Finalize the slides and Jupyter Notebook.  Mildestone3(Dec18): Finish the report and describe the design process, scope, iterations, statistical analysis, takeaways, etc, and submit it on Canvas. | |