TP Design Documents:

Project name: My project will be an Image Editor, which will let the user input an image and then manipulate it using various control features, such as cropping, flipping, rotating, blurring, sharpening, etc.

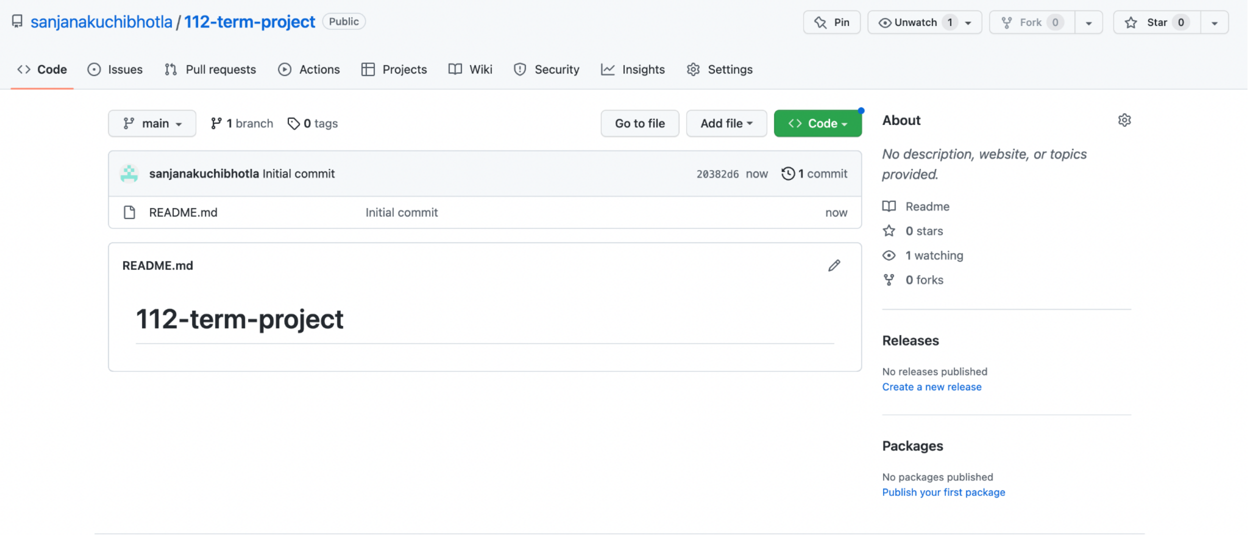
Similar projects: I originally thought of my project as a tool similar to photoshop, with some similar features. I saw some similar projects on the 112 Gallery, which let users input images and then manipulate the features of the image. My project will be similar in that it will serve the same purpose. However, I hope to add certain features such as letting the user upload google images as well as images from their computer. After I reach MVP, I hope to be able to use OpenCV to let users capture an image and directly manipulate the image captured.

Structural plan: I plan to have a button class to control the way the buttons work as well as a slider class to allow the user to change how much a certain feature will be implemented. Each feature will be organized into a different file, and it will all come together in the main file.

Algorithmic plan: The algorithmic complexity will come from the matrix algorithms used to implement each of the features, especially for features such as blurring and sharpening. For blurring, I am planning on implementing some kind of matrix function that averages the surrounding rgb values.

Timeline plan: By TP1, I hope to have most of the simpler features done, and I plan to have all of the features completed by TP2. After I reach MVP, I want to attempt to use OpenCV to let users directly manipulate images from the camera.

Version control plan: I plan on using Github to back up my code.



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README.md Initial commit now

README.md

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About

No description, website, or topics provided.

Releases

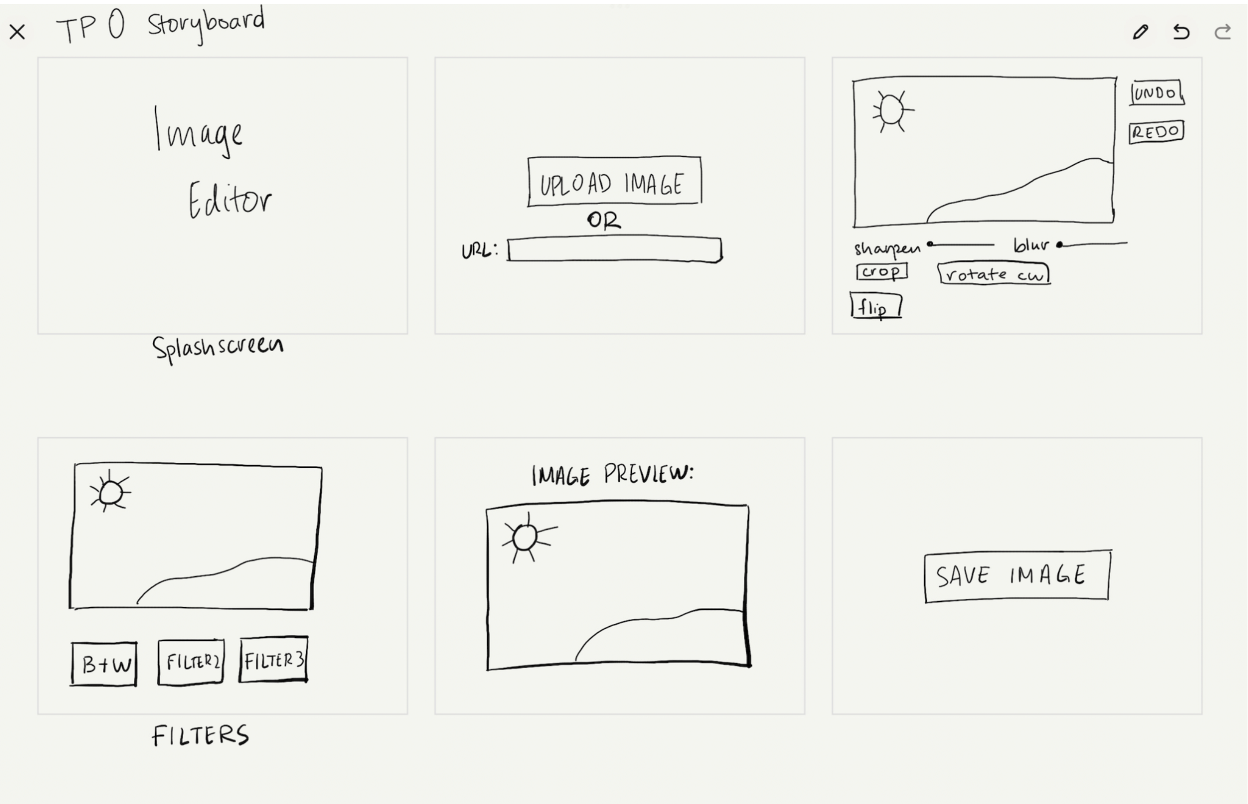
No releases published

Packages

No packages published

Module list: no modules

Storyboard:



TP 1 Update:
I created functions to blur, flip, rotate, crop, a black and white filter, and rgb filters. I also made a splash screen and at the moment, I have a keyPressed that shows changes on the image based on certain keys that are pressed for each feature. I am working on fixing sharpening and adding more features. I am also working on integrating button and slider classes into the user interaction so that different features can be implemented at different levels.

TP 2 Update:
I have buttons working and sliders mostly working. The filters so far are blur, flip, rotate, black and white, rgb, and sharpening. I also created an undo button. Most filters work with the buttons and sliders. Save button works. I am working on implementing layers - they work but I need to still integrate them with the UI. I fixed the UI for the most part. I am working on making my flood fill algorithm work. I am using OOP for the layers, images, buttons, and sliders.

TP 3 Update:
I made the rgb sliders function properly. Added layers, and save button compiles all the layers in order to save the final image. I added hiding/unhiding layers, so the save button will save all the unhidden layers. Updated the UI. Integrated the floodfill function and added a similarity feature

where increasing the similarity will increase the area flooded (since pixels next to each other will be considered more similar). Floodfill allows the user to pick a color to fill the image with as well. Added a color picker that will give an rgb value and color for colors in the image when used. Added opening images so that the user can open whatever images they currently have in the same folder. Adding layers allows the user to import an image of their choice as well.