

Project 1.4.7

Image Artists



Designers:

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Period 1, Computer Science Principles

[Link to Cloud9](#)

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Brainstorming:

Our Client: The Cause

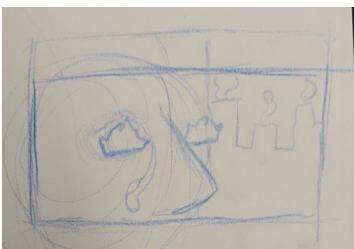
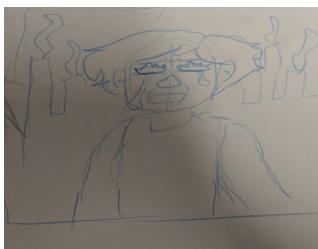
Your client is a group that advocates for a political cause. It could be the environment, education, anything. The client needs a consistent branding for images that will be used to promote their cause – images that are memorable and will have a lasting impact on people. The client could be a real or fictitious student organization, community group, or state/ national/global advocacy group. The client's cause should be a true potential cause even if the client is fictitious.

The client wants an automated process to apply to images. They want the process to use some combination of masking, shading, or combining the images with a consistent logo or superimposed image. The client enjoys abstract art as well and might like geometric shapes incorporated in the image – drawn on, as a border, or as a mask. The client enjoys participating in the creative process and will appreciate being offered a range of options (as a parameter) for one of the image operations you perform.

Brainstorm

Recently a new proposed act was created to combat climate change, so we chose to use this act (the Green New Deal) to be our client for this project. The first idea we came up with was a person/child crying with icebergs in their eyes to make it look like the tears are the melting of the icebergs. We then came up with putting factories/some sort of heat source as the background to represent how its affecting the climate. We choose the image of the child because children have more of an emotional impact to an image; however, it seems more difficult considering that the background has multiple different colors, making it harder to add the factories. We also choose the image of the lady crying because she has rather profound and obvious tears. It would also make the icebergs easier to notice and we could play around with the color of the tears. We also choose it because of its black background, making the factory easier to insert into the image. As we continued to brainstorm, we realized that it would be cool if we had four different background themes that will retain similar features but can give variety to the client. Therefore, we decided to have four different backgrounds for different themes to use for the image manipulation project. This ultimately was the path that we chose to take as we progressed in the project.

Sketched Proposed Images/References



Raw Images in Algorithm:

Image #1 Crying Boy	Image #3 Lonely Seal
	
Image #2 Crying Woman	Image #4 Crying Woman Number 2
	

Array of Images Showing Results:

Original Image



With All Backgrounds/Logo

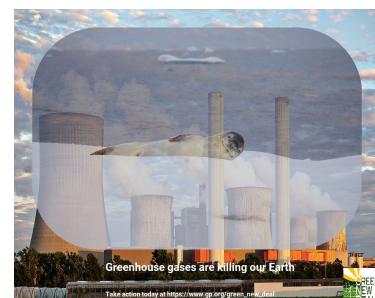


Array of Images Showing Results:

Original Image



With All Backgrounds/Logo

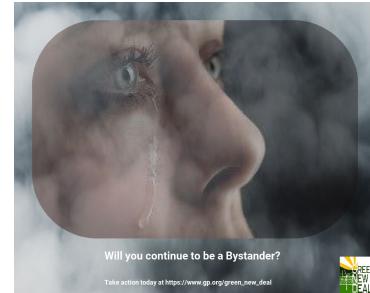


Array of Images Showing Results:

Original Image

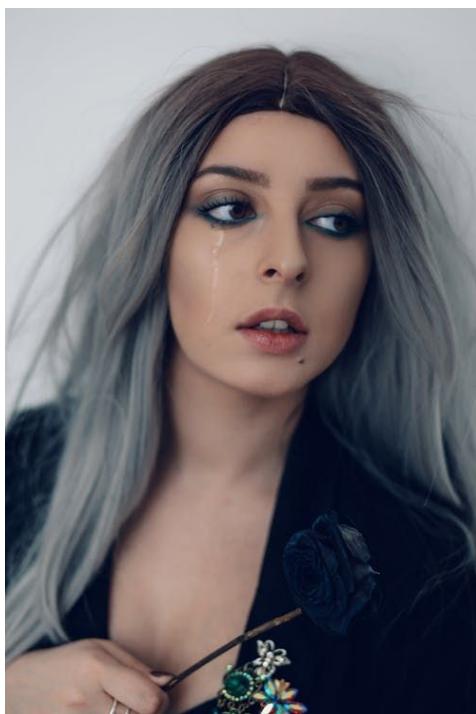


With All Backgrounds/Logo

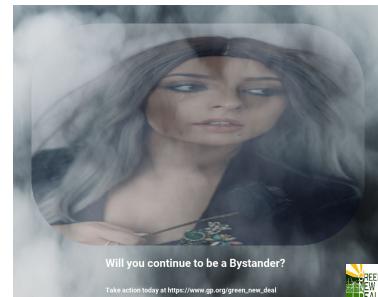


Array of Images Showing Results:

Original Image



With All Backgrounds/Logo



Gallery Walk:

[Link to Presentation](#)

Instructions: To see our display of image manipulations %run Kang_Lafosse_1.4.7_Final.py

You will then receive a prompt asking you which theme you would like.

Type in one of the options exactly and your images will be processed and manipulated in the folder border_images. Enjoy.

Any comments on the code, manipulations, or documentation would be greatly appreciated

Likes/Pros	Missing/Cons
<ol style="list-style-type: none">1. it's really thoughtful how you can choose the theme before you even run the code2. I like the theme of your google slides because it is all sad image.3. I like the original images you used for the backgrounds, with the messages and images.4. I like that you show each manipulation with the different backgrounds in your slideshow5. I like the original images that you use for the background.6. I liked how you use the sad images to make propaganda7. It's nice how you included user interface within the image manipulation, good options for the client8. This would convince someone to change their mind and I love how you managed to choose the right images and combine them with adding text and a "Green New Deal" logo on the bottom right	<ol style="list-style-type: none">1. text on some images is kind of hard to see2. some of the images are squished so a landscape image (where the width is greater than the height) will look really bad in the final image3. Make sure you update your docstrings to be accurate4. maybe you could mask out the background of the women so it's only her body5. maybe find a way to make it look less like a meme and more like a professional image for a cause. (Not trying to be mean that's just what I saw.)6. Maybe try to do more than just round the images and paste on top of each other, pretty simple design7. Would like to see more variations in the original image than just cropping the corners and pasting8. Maybe keep the images separate instead of pasting them on each other(like some on the side, not just stuck to one side side of the picture).

Explanation of Solutions:

Overall the solution that we have created gets the job done, and meets the needs of the clients. The image manipulation coding we utilized allows for the advocacy of political causes, in this case climate change. We created a code that makes a consistent branding that the client can use as many times as they want. The code we created uses masking, and a combination of images all with a consistent logo. Furthermore, the entire process is automated and has a variety of themes to choose from. This provides the client with the range of options that they desired. Overall, the solution's strength is that it is quick, simple, and clean. However, overall it can be far more eye-appealing and be more of an exciting poster. It is definitely not the best "eye-catcher", and not an extravagant design. Furthermore, the solution is not able to handle all types of images. In fact it requires the images to have a minimum size/dimensions of (500, 300). Our code will not work with smaller images, and will not necessarily work with vertical images (there are some exceptions however we did run into some troubles).

Ways that we can improve this is that we create the resizing of the image based on percentage or proportions rather than physically changing the dimensions to a specific size. That way, we are able to retain the same image and actually be able to use it effectively. Furthermore, better masking and changes could have been made to make the image far more extravagant and appealing to the user. Unfortunately, due to being stuck on an error for a long duration of the project, we were unable to make the masking of the image more exciting and intricate.

Our Conclusions:

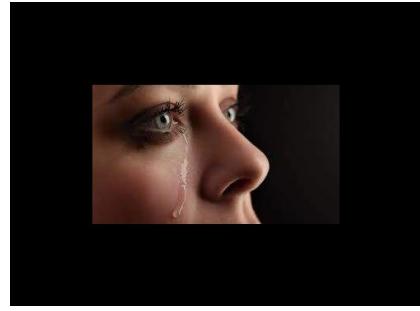
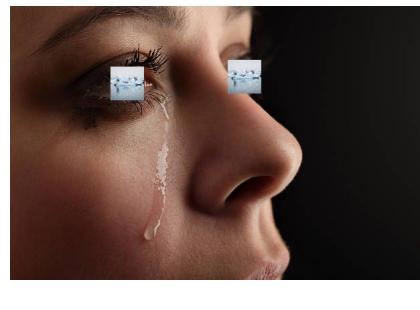
Matthew Kang

Overall our team dynamic was solid, and was greatly attributed to our willingness to exchange phone numbers and sacrifice our personal time outside of class to complete this project, there was mutual interest in completing this project effectively and therefore teamwork came very easily. The team overall had many great ideas, so we had a lot of options to play and work with. Constant communication, and making it clear what each individual was working on made the team work well together as well. Furthermore, my partner and I had trust in each other and knew the other would complete their part of the project. However, many times we were unable to work on the project together due to different priorities outside of school, but we managed to find time and work together on the phone. Ways we can improve include scheduling early on times to work together so that we prioritize the project, and to reach out to more groups more often. If we were able to fix the error we had quicker, we would have been able to do far more with the project. Furthermore, we were a little indecisive on what to do. After a week into the project, we realized what we were trying to do was something we were not really able to do and therefore we had to restart and take a different approach to the project.

Celine Lafosse

I believe we worked quite well as a team, as we were able to accomplish the task at hand in time. However, such as previous assignments I believe that our communication could be clearer. We also could improve on scheduling, as we were working on the projects more individually than together, and we worked at different times. Besides those issues we worked together quite smoothly as a team. We had a lot of trust that we both were able to get the task at hand accomplished and took responsibility to get our portion of the project done. We also were able to work efficiently in and out of class. During class we had rather clear communication on what needed to be done and were able to tell each others ideas for the project. Although we did have some complications as we were a bit indecisive on what we wanted to do for a lot of the time we had. I do believe that our original idea was a bit too much and that we spent a lot of time trying to make a tracker for the eyes, which was outside our field of knowledge.

Daily Log of Modifications:

No.	Modification (Why modified)	Image	Date
1	<p>After brainstorming, we decided to work for client #1 (cause), and more specifically work for climate change advocates and scientists who desire to have a consistent branding for their posters and wallpapers. Using close up images of people crying, we plan to replace the eyes of the people with icebergs (as seen on the right), then incorporate a smoggy effect onto the background, and finally add the Green New Deal logo in the corner of the image.</p>		3/4/19
2	<p>Refined our proposal, and what exactly we wanted to do with this project. Completed the overall structure of the Project Documentation, having all of the sections we will need to document. Started to find certain images that we would like to work with and edit for our project.</p> <p>We then divided the work on the masking also continued to think of things that we would like on the images that we are about to manipulate. Furthermore, we used the time to pinpoint the certain coordinates in which the lady's eyes are. We were able to find them and then used those coordinates to place the icebergs onto the eyes of the lady.</p>		3/5/19
3	<p>Started to work on the python code for the image manipulation on Cloud 9. Referencing the previous activities for image manipulation, we started to set up how we wanted to be able to incorporate the "iceberg" eyes into the eyes of the original image of the closeup. Utilizing the code of the "Earth Eyes" project as the foundation, we were able to find ways to paste the icebergs onto the image.</p>		3/6/19
4	<p>While creating the mask, it became prominent that we needed a consistent way of identifying the coordinates/height and width of the image we are manipulating. Therefore, we started to work on a code that would allow us to detect the eyes of the image. Unfortunately, as we worked on this, we were met with many obstacles including certain importations that were necessary for it to work.</p>	N/A	3/7/19

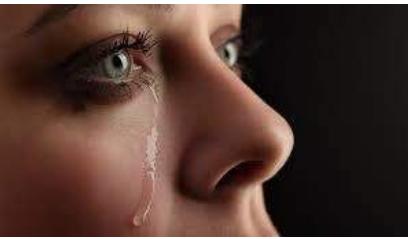
5	<p>30 minutes into the period. We realized that the code we were trying to create was not feasible and is not something we were capable of doing at the time. Therefore, we scrapped our code and went back to the drawing board. We thought of another way of creating a consistent format that can be used as branding for the environmental organization we were working for.</p> <p>We decided to have an inputted image that is pasted onto a background image that would act as the “border”. We would then place the image in a certain spot of the background image and also place the green new deal image onto the corner of the background image.</p>	 	3/8/19
6	<p>We were able to paste the images onto the background image and also place the green new deal logo on the corner of the image. The next step we decided to take was to add text and have an inspirational phrase or quote that gives users a call to action.</p>	 	3/11/19
7	<p>Before we added text, we decided it would be in our best interest to add different options for image manipulation. Therefore, we found different background images that we would like to include or have our images on, and then incorporated separate code for each background image.</p> <p>On the right is an example of one of the other images we decided to import (factories). We imported 2 other themes: mother nature and icebergs melting.</p>	 	3/12/19
8	<p>Completed the background imaging and making it so that there are a variety of options. We then had to figure out how to add text and how to place it into the image. After trying to use the commands for adding text and failing to add anything. It took us time to realize that we had to import a font, therefore using GitHub we downloaded the files for RobotoBold. Then using the draw text command, we were able to finally realized that we needed to import a font for the text image function to work.</p>	  	3/14/19

9	We continued to try an easier way to organize the folders and experimented with putting the text in other places such as in the corners. We also continued on trying to lower the opacity of the logo in the corner, however we agreed that it looked best at full opacity. At lower opacities it made it harder to notice due to the contrasting backgrounds.	n/a	3/19/19
10	We finished creating the main border and adding text to all the images and continued brainstorming on how we could make it easier for a client to change the output image to what they would like. We also thought about how we could make more options for the client depending on what their preference/message is. For this we wanted to add a function where a user could choose between different styles. We wanted to have a variety of images to choose from as a background. Therefore we created a function in which the user could choose between 4 images and different messages in which it came with.	<pre>===== User Interactions/Choice of Theme ===== def themesQ: """ A user interaction function that allows for the users input on which theme will be used to modify the images. This will be used the client wants to be able to interact with the images. These images, however, have images manipulated. The interface will first ask the user what theme to choose: whether it's smoke, factories, nature, or icebergs. Then based on the selection of the user, there will be specific code to do so. The images will be then returned to the bordered images and a nice little message that lets the user know that the action is being completed will be given. """ themes_list = ['smoke', 'factories', 'nature', 'icebergs'] theme_condition = 0 print("You have four themes to choose from: smoke, factories, nature, and icebergs") print(" ") response = raw_input("Which theme would you like to use? ") while theme_condition == 0: if response.lower() in themes_list: theme_condition = 1 else: print("I'm sorry that was not an option. Please choose again: ") print(" ") if response.lower() == "smoke": print(" ") print("Awesome, your images are being processed in the border images folder... ") smoke_back_all_images() if response.lower() == "factories": print(" ") print("Awesome, your images are being processed in the border images folder... ") factories_back_all_images() if response.lower() == "nature": print(" ") print("Awesome, your images are being processed in the border images folder... ") nature_back_all_images() if response.lower() == "icebergs": print(" ") print("Awesome, your images are being processed in the border images folder... ") icebergs_back_all_images() themesQ</pre>	3/20/19
11	We completed the “theme” user interaction function and made it work. All commands work properly and call the correct functions that we have created. Today we continued working on the function for the user interface to see what we could improve on or what we could do to organize the output images clearly. We figured to make the output files have different endings such as “.._icebergs.jpg”. We tried to reorganize it so that the code won't run the background images through the process.	<pre>In [6]: %run Kang_Lafosse_1.4.7_Final.py You have four themes to choose from: smoke, factories, nature, and icebergs Which theme would you like to use? smoke Awesome, your images are being processed in the border images folder...</pre>	3/21/19
12	Worked on modifying and updating our images based on peer feedback. Our main focus is to create a more professional look, as the original format looks unprofessional. We believe it's due to the large amount of space between the raw image and the text. So, we worked on trying to change the opacity of the raw input image and finding a place to put the text. Our plan is to have a more opaque and larger input image in the center, with text on top and text on the bottom. The drawing was created during our brainstorming process for when we were brainstorming for the final project.		3/25/19

13	<p>We continued to work on our improvement idea and change the opacity and size of the image. We mainly struggled trying to center the image and text so that the image was not leaning too much to one side. We also found that we could not go too opaque because backgrounds like the factory and the smoke made the image disappear. Instead of changing the opacity to 112, we changed it to 200. We also added both text messages on the bottom, since they the larger one was hard to find on the top of the image. We also changed the text on the image for all messages to be white, since the iceberg background made it hard to see with black text.</p>		3/26/19
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Credits:

Raw Images

Image #1:  https://www.quora.com/Why-do-some-people-cry-so-easily	Description: This is one of the images that will be used on top of the borders, as there will be many more like it. All of the images like this will be in one folder, which can be modified all at once. Citation: Article title: 10 causes of eye watering and tearing and how to treat it Website title: Ohio State Medical Center Date Published: December 19, 2018 Author: Stephanie Pisano
Image #2:  https://mosaicscience.com/story/where-theres-smoke-Asia-air-pollution-haze/	Description: This image is used as a background for the “smoke” setting Citation: Article title: Hazed by the smog: where does Asia’s air pollution come from? Website title: Wellcome Author: Mike Ives
Image #4:  https://www.pexels.com/photo/couds-daylight-forest-grass-371589/	Description: This image is used as a background for the “nature” setting. Citation: Article title: An Unlikely Source of Plastic Pollution + Other Stories Website title: Free Stock Photos

<p>Image #5:</p>  <p>http://forum-network.org/speakers/jacobs-wendy/</p>	<p>Description: This image is used as a background for the “factory” setting</p> <p>Citation: Article title: Wendy Jacobs Website title: Forum Network</p>
<p>Image #6:</p>  <p>http://abetterworld.tv/mitchell-rabin-interviews-robert-hockett-adviser-on-the-green-new-deal-2/</p>	<p>Description: This image represents the logo for our client and will be placed in the bottom right corner of all images.</p> <p>Citation: Article title: Mitchell Rabin Interviews Robert Hockett, Adviser on the Green New Deal Website title: A Better World Date Published: February 14, 2019</p>
<p>Image #7:</p>  <p>http://vocom.com/news/local-business-protests-provincial-iceberg-tax/</p>	<p>Description: This image will be used as a background on the “iceberg” setting</p> <p>Citation: Article title: Province Working to Resolve 'Iceberg Tax' Issue Website title: VOCM</p>
<p>Image #8:</p>  <p>https://www.pexels.com/photo/woman-in-black-top-standing-near-white-wall-1436291/</p>	<p>Description: This is one of the images that will be used on top of the borders, as there will be many more like it. All of the images like this will be in one folder, which can be modified all at once.</p> <p>Citation: Article title: Woman in Black Top Standing Near White Wall · Free Stock Photo Website title: Free Stock Photos</p>

Image #9:

[https://www.pexels.com/de-de/fo
to/draussen-eis-eisberge-eisig-68
9778/](https://www.pexels.com/de-de/foto/draussen-eis-eisberge-eisig-689778/)

Description:

This is one of the images that will be used on top of the borders, as there will be many more like it. All of the images like this will be in one folder, which can be modified all at once.

Citation:

Website title: Pexels.com

Image #10:

[https://unsplash.com/photos/NP
mR0RblyhQ](https://unsplash.com/photos/NPmR0RblyhQ)

Description:

This is one of the images that will be used on top of the borders, as there will be many more like it. All of the images like this will be in one folder, which can be modified all at once.

Citation:

Titled: Tears for the loss of a beloved family member.
Website title: Unsplash.com