Type Haus – Font Collab

Blurb – A fun Font Collaboration on the Type Haus Discord

Text

In a collaborative event hosted by TypeHaus, a discord channel for graphic designers and creatives, the community came together to create a Type Font (Think Times New Roman or Helvetica). Different members assigned other members in the community either a letter or character, sometimes both! The community hosted the event for two weeks. People shared what letters or characters they received and shared their ideas and sketches.

I was assigned the lowercase k and the number 2. I started with many sketches to visualize my work. Getting ideas out on paper is my way of tackling projects. Aiming for something different but still recognizable, I made sketches that were loose to get ideas out quickly.

Once I had an idea of what I wanted, I uploaded the images to Adobe Illustrator and began creating vectors. This was not my first-time using illustrator, but I am always finding new ways to do things. I really started to use the shapebuilder tool to combine shapes and shave off excess. It is a great way to make complex shapes using primitive ones.

After I was finished, I submitted my work to the community, where other members put all our letters and characters into one font file. The font team shared the file with the community that we can now use in our other projects. I am delighted with the result and so glad I could create this!

Hungry Society – Article Banners

Blurb – Article banners created for a magazine article

Text

The client reached out to me to create some banner art for her article on The Hungry Society. It was an interview with the publisher of Cuisine Noir, the first magazine dedicated to highlighting black chefs and the black experience in food, wine, and travel culture. I made a total of 3 images, with an additional three revised for client’s approval.

I wanted to achieve a feeling of celebration of all that the magazine has accomplished while also staying in theme for the magazine. I created a banner that took the chefs on some cover pages of the magazine from years prior but decided to do a collage instead so that the focus was on the magazine and not the chefs themselves. This is why I feature the title in the center. I kept the original font to help with brand recognizability.

The client liked the original image but wanted to incorporate more of her brand colors (from the Hungry Society’s warm tones) into the image. She asked if I could add flowers to the original, so I did, but I went ahead and made 2 more images that incorporated the colors she wanted in, which is the one she ended up choosing.

Portfolio Website

Blurb – This very website you are on!

Text

Yes, this very website!

This is a couple months of effort, but I am satisfied with the final result!

Purpose

The reason I wanted to create this website was really to test my skills in HTML and CSS. I recently started teaching myself how to use them, so I can have a good foundation before moving onto JavaScript and JavaScript libraries, like React or Vue.

I also wanted a website I could 100% customize, only limited by the skills I have.

Planning

Before I started, I did a lot of research (aka, watching YouTube tutorials). To avoid what others have called “tutorial hell” I quickly started testing out techniques I was learning in HTML. Once I had a very basic understand of different types, formatting, etc., I started writing down everything that would be featured on the site. This included the homepage, the projects, and the about me page. I tried to keep it simple, so I wouldn’t overwhelm myself. I also started jotting down ideas for layout, images, etc. to get an idea of what I wanted. A lot of the ideas that I had seemed to be out of my skill level, but after completing the website, I would like to go back and attempt them.

Once I decided the basics, I moved on to wire framing my website in Figma. I decided on Figma since it was an application I have used before (on the Moth Classifier project) and I knew I could pick it back up. I first created a Mood Board to get an idea of what colors, fonts, and mood I wanted my project to be. Then I moved onto the webpages themselves. Navigating through Figma itself was not that difficult. It is very similar to Photoshop and Illustrator that I have used before. Any time I faced a problem, I found the solution through Google.

(Link to [Figma](https://www.figma.com/file/CSWbiWfHn9qr3yY5qCLrUR/Portfolio-Moodboard?node-id=0%3A1) File)

Creating the Website

Finally, the daunting part was upon me: creating the webpage.

At first, I wanted to add JavaScript to my site, but I decided to test the limits with HTML and CSS, so I could really understand it, (also less scary than JavaScript).

Over a couple of months, I continually updated my pages. Anytime I thought of something I wanted to include, I googled the information. For example, after looking for a way to make a grid format for my webpages to organize them, I discovered CSS Grid and Flexbox. I completely changed how I was organizing elements on the page.

Conclusion

I was able to finish my first webpage! There are countless things I want to do to improve it, but I’m satisfied with my first attempt! It may continue to change over the next couple of months, after I work on some other projects to up my skills. My next plan is to learn JavaScript, so I can begin to use some JavaScript libraries such as React or Vue. Thanks for reading!

Moth Classifier

Blurb – Classifying Moths with Machine Learning

Text

* The Moth Classifier is an embedded system that consist of a Raspberry Pi that takes images of moths and uses machine learning algorithms to correctly identify moths and measure the size of them.
* The project consists of three major parts. The first part is an embedded system consisting of a motion triggered camera which will take pictures when it detects the motion of a moth. Next is morphospecies classification, where the images taken will be classified as the correct species of moth. Last is specific species classification. This is where images that are classified as the specific species, Malacasoma Americanum, have size analysis performed on them such as wing span and area so that scientist can use this information to aid in their research.
* My team consisted of three people, and we were each assigned to the three different parts. I oversaw the first part, the embedded system that would take the pictures.
* Software/Hardware Used
  + Software/Libraries
    - Amazon AWS Client (AWS CLI) for Raspberry Pi
    - OpenCV Library
    - PyImages Imutlis package
    - Figma
    - Autodesk Fusion 360
    - Adobe Premiere
  + Hardware
    - Raspberry Pi
    - Raspberry Pi Camera Module V2
* Project Timeline
  + September – October 2019
    - I began my part of the project by researching the best way to achieve the embedded system setup. We meet with our potential client, a researcher at a university, to talk more about the process that scientist go through when identifying moths. I came up with a drawn mockup of the system so that I could see what equipment/pieces would need to be purchased. I sent the list to our project manager and made the mockup using a cardboard box. I attempted to use Cron, a Linus scheduler, to run the program every few seconds so that we could capture the images of moths periodically. This was not successful, and I went back to revision stage.
  + November – December 2019
    - I continued to try to come up with a more intuitive solution to the problem of taking pictures. I was still attempting to do a time-based system. I used the timer function in python to sleep the system before taking more images. My project manager suggested that I look into motion detection to trigger the camera. They said I should use OpenCV, an open-source computer vision library, which would give me the capability to do just that without any additional hardware.  By the end of December, I had the system prototype, and it was taking images based on time elapsed. I also integrated AWS S3 buckets with my code to upload images taken on the Raspberry Pi directly to the cloud.
  + Winter Break
    - I attempted to download OpenCV. I tried many times, but I could not figure out how to download and install the software successfully onto the Raspberry Pi. I instead worked on a 3D print for the system by using Autodesk Fusion 360.
  + January – March 2020
    - When I got back, my project manager gave me a Passive infrared sensor (PIR) sensor because OpenCV was not downloading onto the Raspberry Pi. I wrote code so that motion detection with the sensor was working. I was then able to get OpenCV to download and write the code for motion detection with software. I found a useful library created by PyImageSearch which helps with the motion detection image processing for OpenCV. Now the project supports both modes of motion detection. Since I finished my part, I started working on the website design. My team and I began making low fidelity designs on paper to get an idea of what information we would need to have on the website for scientist to properly use. I then used the online tool Figma to come up with a high-fidelity design for the website.
    - [Link to Figma project](https://www.figma.com/proto/vGS3MnksEpoQZyrMR6v1K9/Me-Moth-and-You?node-id=1%253A2&scaling=min-zoom)
  + Spring Break
    - Covid-19 closes universities across the country, including mine. Many of the plans of the project had to be stopped to compensate for the limited capabilities at home.
  + April – May 2020
    - We revised some parts of the project after advising from our product manager and turned in our final package.
  + Future of the Project
    - In the future, the project will be continued by more seniors in the computer science department of my university. We left documentation and specifications to ensure a clear transition between our team to the next. We also outlined additional features that can be made to make a more concrete product for the scientists to use.

About Me

- My name is Alicia Montgomery and I am a recent graduate with a B.S. in computer Science and a minor in Fine Arts. I'm currently pursuing a career in UX/UI design or software engineering! I love working on projects that challenge me and force me to be creative in my solutions. I'm a problem solver, hard worker, and passionate about putting out a beautiful, working piece, whether it be design or programing.

Hello! My name is Alicia Montgomery. I am currently pursuing my master's in Information Technology and graduated in 2020 with a B.S. in Computer Science with a minor in Fine Arts. I am currently exploring web design and development and learning as much as I can with HTML, CSS, and JavaScript. I love working on projects that challenge me and make me creative in my solutions. I am a problem solver, hard worker, and passionate about putting together a beautiful and functional piece, whether it be design or programming!

- Contact Me

- Photo Captions

o @ Hirshhorn in Washington, D.C. - Pat Steir - Color Wheel