# matthewia/**info**

I’m Matthew Alicea, a multidisciplinary designer with a B.S. in Computer Science from Appalachian State University. I create digital interfaces and user experiences.

Alt: I create digital interfaces, graphic designs, and print designs.

matthewia/**tags**

* Graphic
* Print
* User Interface (UI, iD)
* Programming (Code)
* WIP

# ~~matthewia/~~**~~projects/1~~**

~~Name: OS1 Brochure (stylized OS~~~~1~~~~)~~

~~Tags: Graphic, Print~~

~~Year: 2015~~

~~Info: Inspired by Spike Jonze’s film~~ *~~Her~~*~~, I created a mock informational brochure documenting the fictional operating system, OS One (OS~~~~1~~~~), for a print course. As I designed the document and wrote the copy, I developed a design language based off the few short clips of the UI in the film. This project was the final product of a culmination of small personal projects related to~~ *~~Her~~*~~, as well as the starting point of my interest in print design.~~

# matthewia/**projects/2**

Name: Spectra

Year: 2016–Present

Tags: User Interface, Programming, WIP

Info: Spectra is a search engine that visualizes ideas in a way that popular search engines do not. With Spectra, you search the web for ideas and concepts. This is a search engine for knowledge; not just for websites, or images, but for exploring entire systems of thought. I’ve worked on Spectra for over 2 years collaboratively with another designer, slowly conceptualizing and iterating.

Nothing is one thing, but rather a sum of its parts. Spectra aims to emulate that essence. No idea or concept exists in a vacuum separate from all other concepts, but rather is intertwined with others in order to exist. Spectra aims to let users explore that by focusing on three things: visualization, navigation, and organization.   
  
For my senior capstone, I developed an early version of Spectra.

Media: 1) 2016 – the birth of the idea, and early conceptualization

2) 2017 – developing a design language and more conceptualizing  
3) 2018 – refining the design language, first build (spectra-cp), embed demo video

4) 2019 – ??? [maybe some fun interaction with the question marks]

Copy: 1) From the beginning, we knew we wanted the interface to feel like a *space* to explore. Thus, we also needed to think about organizing that space in an intuitive way.

2) Iterate. Iterate. Iterate.

We took a step back from creating any more UI views to establish a design language.

Then, we began designing the views core to the experience as a whole.

3) Refine and build the base camp. For my senior capstone, I built an early prototype of Spectra.

The design for spectra-cp focused on the results, as the scope of the project had to be constrained to just the basic searching experience.

# matthewia/**projects/3**

Name: ChaseUI

Year: 2018

Tags: User Interface, Programming

Info: For Team Sunergy, Appalachian State University’s Solar Vehicle Team, I designed and developed a telemetry dashboard interface for race strategy. Our main goal with this project was to create an interface that allowed race strategists on the team to view real time data, in order to make important decisions about the race, the car, and the driver. We also wanted the interface to look clean and be simple enough for anyone on the team to use.

Media: 1) Process/Mockups, 2) Short clip/video demo

Copy: 1) As the only designer on the telemetry team, I took lead on designing ChaseUI. I periodically met with the telemetry lead to review the layout and discuss the data values that needed to be presented, as well as their level of priority. In the early stage of the project, I designed while another developer worked to create a basic prototype with backend code.

2) Once the foundation for the project was built, I started refining the front-end, which included reorganizing the project structure, styling the app to match the wireframes and mockups, and implementing a real-time updating graph component. We developed the app using React and various JS libraries and node modules. Beyond the interface, we also built a backend that was capable of connecting to our companion software running on a remote computer (RaspberryPi) via WebSockets.

matthewia/**projects/4**

Name: DashUI

Year: 2018

Tags: User Interface

Info: For Team Sunergy, Appalachian State University’s Solar Vehicle Team, I designed a digital dashboard interface for their 2018 vehicle, ROSE. We wanted to have a dashboard that evoked the feeling of being in a modern vehicle, but with additional tools fit for a solar-powered electric vehicle (EV). The default screen needed to be easy for the driver to use, but also provide alternate views for testing purposes.

Media: 1) Mockups, 2) Short clip/video of navigation

Copy: 1) Not being a developer on this project allowed me to focus my effort in the design. I began by researching existing digital dashboard designs, particularly in EVs such as Teslas. From there, I started sketching wireframes ranging from relatively traditional twin-dial layouts to those befitting a sci-fi film.

2) I had numerous meetings with the telemetry lead and various directors from the sub-teams, in order to determine what data values are most necessary to display for the driver. In solar vehicle racing introduces a new set of measurements to be monitoring compared to a standard EV, let alone a traditional gasoline car. However, I wanted the design to be approachable to the average user and avoid overwhelming them with too many dials or moving parts. To accomplish that I focused on designing the layout while thinking about the hierarchy of priority of each data field.

3) A significant element of the design is the large colored arch across the bottom half of the Standard view. This, paired with the value displayed under the arch, was my solution to including the Net Power as both a raw value but also as a quick visual indicator. Net Power is important to solar racing, as it correlates to current efficiency based on your incoming power from the solar panels, and your outgoing power from the motors.

4) Another aspect of this project required me to effectively communicate my design to the developer working on building the interface. I created a design handoff for the developer to use a reference, as well as had meetings about implementing the design in code.

matthewia/**projects/5**

Name: ProLo Systems

Year: 2017

Tags: User Interface, Programming

Info: For the final project in my client-side web programming course, my group and I created a prototype business management tool to help keep track of property declarations for taxes. I designed the UI, and worked collaboratively to program the application using JavaScript and JQuery. Working on this project was my first experience leading a collaborative programming effort. I set up the project and wrote an extensive README with the goal of getting us started by translating my design work into code, and outlining features and specs.

Media: 1) mockups, 2) short demo video/clip of the “working” site

matthewia/**projects/6**

Name: Doris Goedeke Scholarship Foundation Website

Year: 2013-2018

Tags: User Interface, Programming

Info: ~~I worked with the Doris Goedeke Scholarship Foundation (DGSF) founders for 5 years, as a web designer and to maintain the website. It began as the first website I had ever built. In my final two years working with DGSF, I began developing a redesign to utilize new skills and web development practices I had learned more recently.~~

In 2013 I was given the opportunity to build a website for the Doris Goedeke Scholarship Foundation (DGSF), a non-profit that helps fund college experiences for Hispanic youth. I worked on a volunteer basis to build the site, and then maintained it until early 2018. This project sparked my interest in computer science and web design as a career option. It wasn’t until 2017 that I started looking back to the project and thinking about how it could be improved with my new skillset.

Media: 1) Old / New comparison maybe 2013 -> 2017 -> 2018, 2) complementary documents

Copy: 1) Look… it works!

2) The original design began to haunt me every time I had to update the site. So I decided to put some effort into thinking about a redesign.

# matthewia/**resume**