Cornell Themes Project Overview

This poster is modeled after the old Cornell 2017 Theme.

Fixing the 2017 Cornell Theme

Our first task in the project was to look at the current Cornell Theme and find everything wrong with the current theme. We added every available widget, moved around pages, and looked at every possible type of content that can be displayed. From there we complied a list (Fig. 1) of all of the bugs we found. We also included issues with widgets and potential solutions that would make the site more user friendly.

From there, we presented the most serious bugs to our supervisors. We also specified which bugs exist, but are low priority based on how often the issue is likely to occur in a normal site, given that our test site had combinations of features that a normal site isn't likely to have. We then spent a week fixing the most important bugs and documenting what fixes we wanted to implement but were not able to because we couldn't override some of WordPress's prioritization.

	Task	Description	Location	Priority
N	fix sidebar	When too long, items fall out & border cuts short	main body	high
N	improve dropdown menus	items are too closely packed together, design doesn't work for long item names	main body	high
N	seperate code into different template parts	make function.php easier to read using PHP includes	code	high
	create new sub-template with more functionality		wordpress	high
N	move code to new CSS framework		code	high
N	suggest clickability for buttons, link, and calendar links	Hovering over these items don't show users they can click. Dates with posts are underlined in calendar, but hovering over doesn't show users they can click	buttons, links in archive, calendar	high
N	subitems of dropdown menus appearing	within the dropdown menus, if an item in the dropdown has sub items, the sub item options still appear when a different item in the dropdown menu is being hovered over	menu	Low
N	Instruction text for the primary and secondary sidebar	users don't understand difference between primary and secondary sidebar	sidebar	high
Y	consistancy across browsers			high
N	change images to full width	text wraps around two images even if it can only fit 2 letters, making it difficult to read in mobile version	page	high
N	subitems in drop down menus don't appear	add more down arrows to navigation	menu	Low
N	Redesign menu bars		menu	high
N	Better accommodate menus with lots of items		menu	high
N	Change the way the items roll down		menu	high
N	Change how upper and lower menus are differentiated in mobile		menu	high
N	Add log out button next to search		menu	high
Y	Fix Menu on mobile		menu	high
N	Eliminate shadow		menu	high
N	Enable clicking to get rid of menu		menu	high
Y	Redesign search bar		menu	high
N	Turn search bar into a slide instead of a dropdown		menu	high
N	Fix inconsistency of fonts		menu	high
N	Have one button for searching		menu	high

Fig. 1: A list of Bugs we compiled on the old theme.

Our Project: Design a New Theme for Cornell Blogs

Cornell maintains a WordPress infrastructure that allows any Cornell affiliate to easily put up a website for free. This website has a limited number of themes, website designs that can be changed at will and do not affect the content. The primary theme is a Cornell Branded Theme, last updated in 2017. Our first goal was to identify any issues and bugs with the 2017 Cornell Branded theme and fix them so that they are not present in the new 2019 theme update. Our second goal was to design 2 new child themes based upon the existing structure of the 2017 theme, to provide users more options and a more modern look.

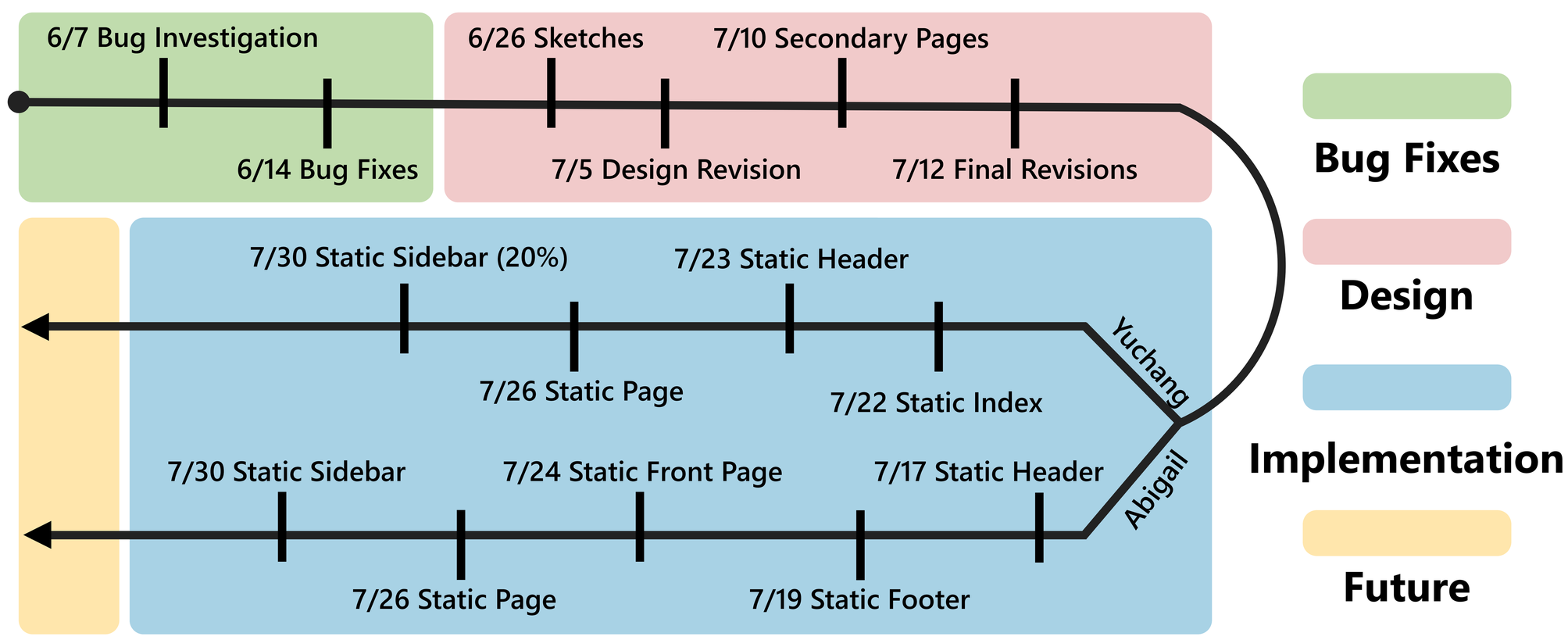
1. Planning

In our initial planning, we estimated how long it would take fix all of the bugs and the priority level of the bugs. Then, we assessed the high and low time estimates for tasks, based on the possibility of things going awry or smoothly. From there we estimated the highs and lows of different tasks related to design, design implementation and CSS implementation and we were able to generate an initial timeline. As the project progressed, we had to readjust our planning in incorporate changes like no longer implementing a new CSS framework and implementing two theme designs instead of the 1 we initially planned for.

2. Design Process

We began our design process through an assessment of use cases. Throughout the assessment process, we did research on the uses for cornell.blogs.edu, widget use, and types of content presented. This allowed us to identify prominent user needs. Using this information, Abigail and Yuchang sketched 2 designs each. After sketches were complete, we got feedback from designers and a UX specialist in Custom Development in order to improve our initial design. After the designs were revised, we presented our designs to our project stakeholders who selected 1 of Abigail's designs and 1 of Yuchang's designs. From there, we took into account the feedback we were given, and the designers created secondary pages for their design, which will serve as primary content pages. After getting approval for the secondary pages and receiving more feedback, we underwent one more final round of designs and approval before starting implementation.

Timeline



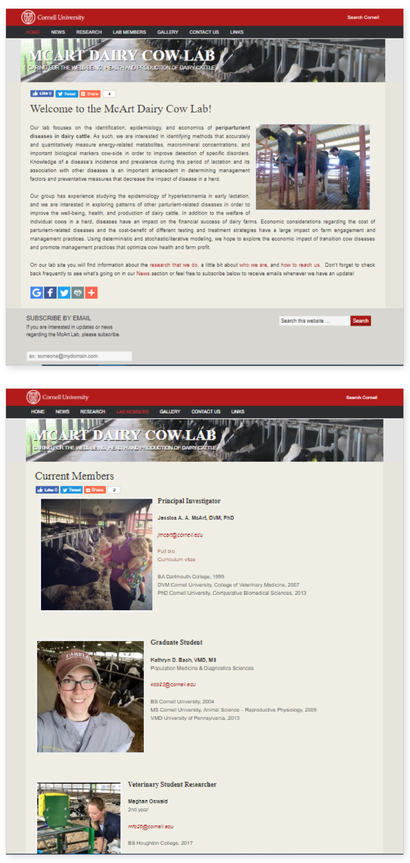
Our Designs

This poster is modeled after Yuchang's new theme design.

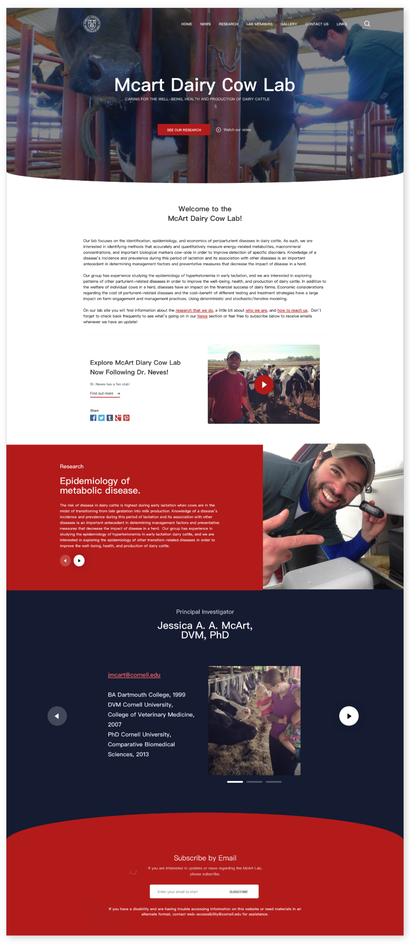
Curve by Yuchang

This design includes more curves and a more efficient presentation of information.

Old Design for Mcart Dairy Cow Lab



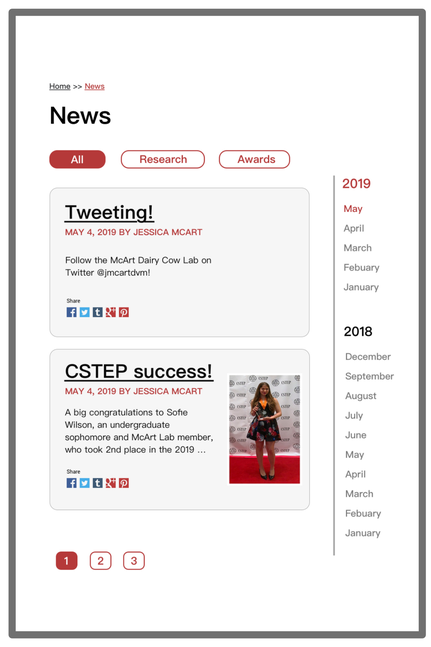
New Design of the Home Page



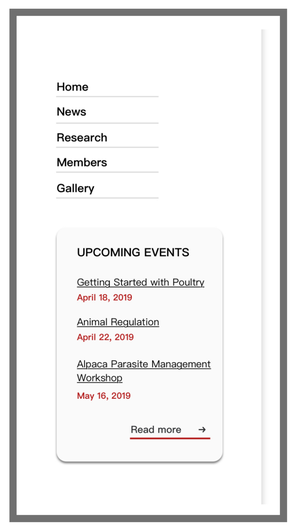
New Design of the Secondary Pages

New Design of the Secondary Page

Vertical Timeline for Blog Posts



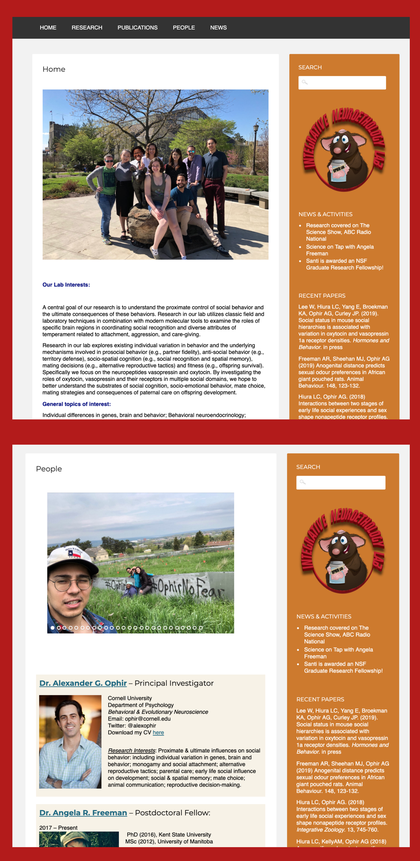
Side Nav



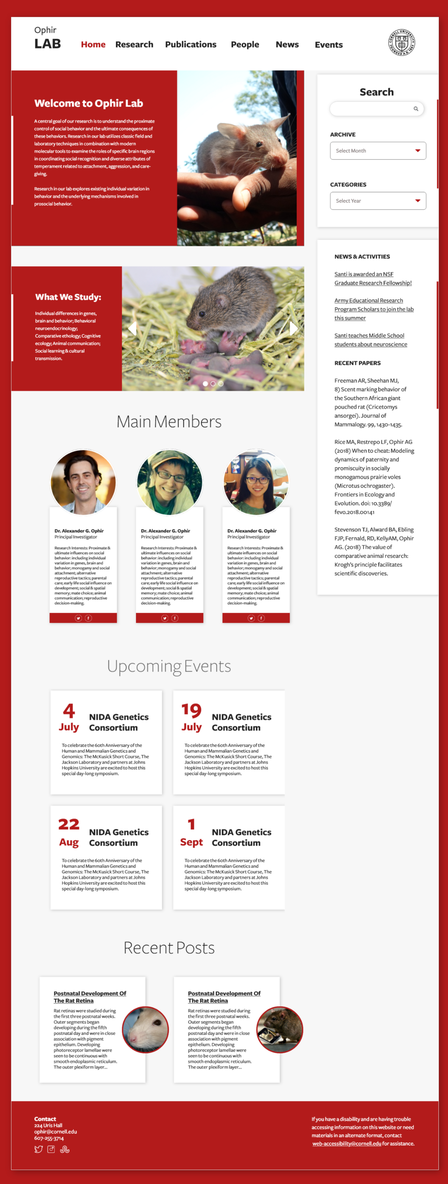
Gazette by Abigail

Abigail was inspired by the composition of a newspaper, because it's very minimalist and simple. She incorporated boxy elements and shadows to make her design feel modern. Accent colors were added as customization options for users.

Old Design for Ophir Lab

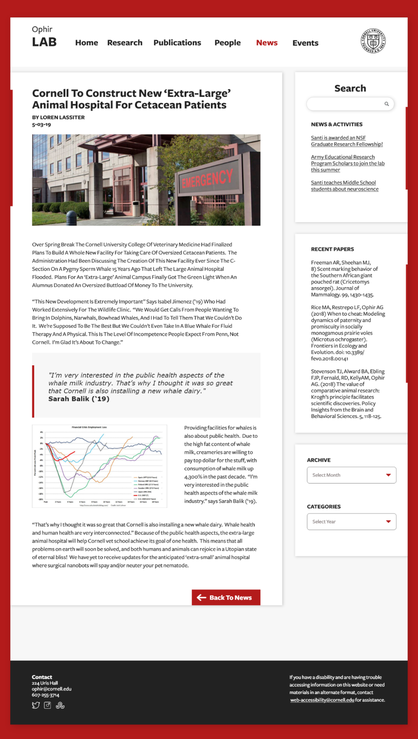


New Design of the Home Page

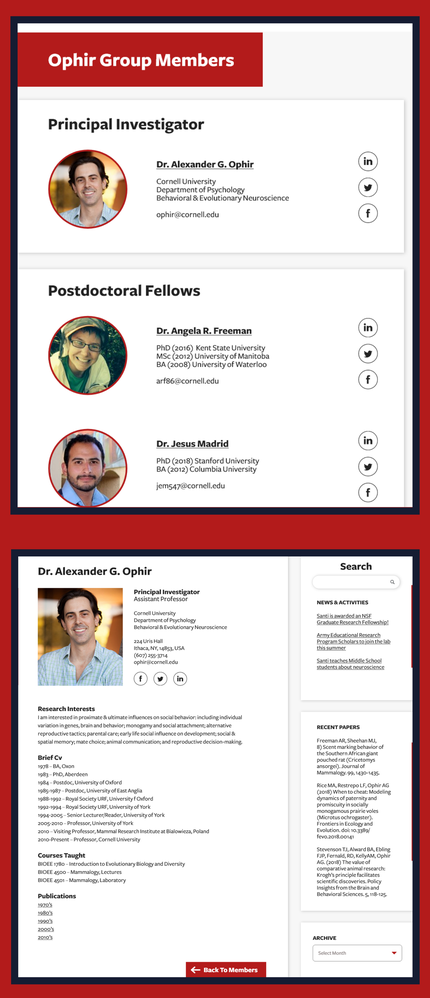


New Design of the Secondary Pages

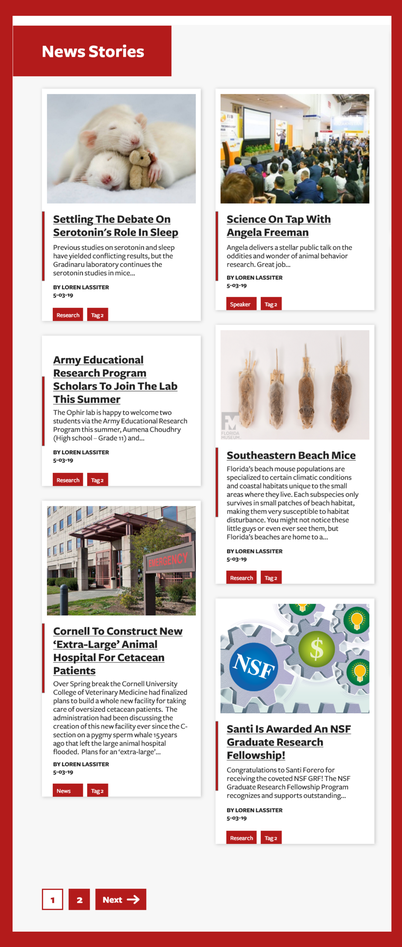
New Design of the Secondary Page

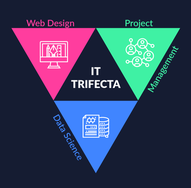


Member Intro



News Cards





Our Team & **OUR IMPACT**

This poster is modeled after Abigail's new theme design.

Custom Development Team

The CD Team consists of higher education specialists who provide custom web solutions and support to the Cornell community. They develop websites and apps that meet Cornell standards for identity and web accessibility.

Our Team

Abigail Zhong
Web Designer

Cornell IT,
Custom Development Team

Physics Major & Info Sci Minor
College of Arts and Sciences
Class of 2020

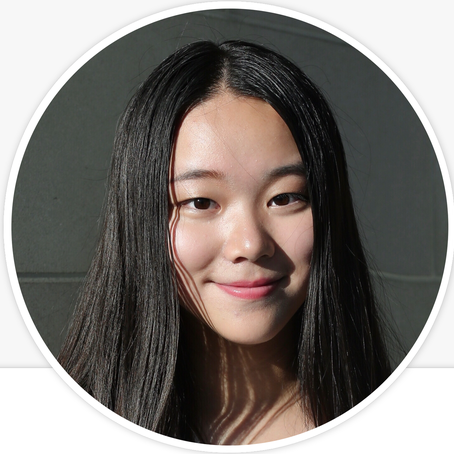
Home town: NYC

Isabella de Castro
Project Coordinator

Cornell IT,
Custom Development Team

AEM Major & Theater Minor
SC Johnson College of Business/ CALS
Class of 2021

Home town: Walnut Creek, California



Yuchang Zhou
Web Designer

Cornell IT,
Custom Development Team

CS & German Studies major
College of Arts and Sciences
Class of 2020

Home town: Shanghai, China

SETBACKS

In the beginning, the project given to us was very broad and not clear. Our project originally included implementing a new CSS framework, or website structure, to the 2017 Cornell Branded Theme. However, after crunching the numbers, we found that the amount of time to complete this would extend past the summer internship. Thus, we concluded with our stakeholders that we would create new themes based off the current 2017 theme, without all the errors.

ACCOMPLISHMENTS

1. We were able to solve all the high priority bugs we found in the current theme code.

2. We created four strong design concepts for the new Cornell child themes.

3. We were able to manage 3 projects at the same time by estimating the hours for each project and allocating time each week for specific tasks.

4. We were able to get 2 designs approved to start coding.

SOFTWARE PROGRAMS LEARNED

- Adobe XD
- Docker
- Lando
- Microsoft Project
- Pantheon
- WordPress

Our Impact on:

Users

Our new themes will enable Cornell affiliates to easily create modern websites that fulfill their needs.

1. Usability

The 2017 default page after creating a site is confusing and lacks any organized structure. The new themes will have easy to use defaults, with pre-created pages and menus that can then be easily customized.

2. Functionality

The current theme lacks the functionality that users need. 70% of observed blogs.cornell.edu sites used a people section, which is a manually intensive to self-build. The new themes include member layouts.

3. Customization

The 2017 Branded Theme offers very few options for customization, leaving all sites to look like a generic Cornell site. Our new themes offer originality through more color and image options.

CD Team

We have allowed the Custom Development Team to save time and money on new themes while gaining insight into the needs of users .

1. Use Case Spread

We did a use case study on 40 different sites using the Cornell blogs website. Custom Development now has a greater awareness of how users chose to use the their site, and can develop future WordPress themes and support future plug ins with those needs in mind.

2. Cost

Based upon the design and development work of this project, we calculated how much it would cost to have another firm do this project. This project would have cost about $62,114 if it was done by a professional design agency.

3. Future Fixes

Custom development is now aware of all of the usability improvements and bugs that need to be fixed in the future, saving them time and allowing them to quickly fix issues as they are updating the CSS framework.

4495 websites

28,150 users

2 brand new themes