Write-up for CS Website

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I will begin with a brief discussion of the project, and well as site my contributions as well as my colleague's. I will also outline the best way of navigating through the website so as to see the work that was done.

The goal of this project was a redesign of the University of Pittsburgh's Current CS departmental website. This was not an attempt at creating an entire, fully functioning website. The main focus was to create a detailed template, which would outline how to better display information to the users, and make the website generally more navigable. In addition, we had a major focus on mobile compatibility, a lack of which is a major issue in the current CS website.

My colleague, Pete Stamos, started by designing the home page (index.html), as well as the fixed top/bottom navigation bars, and the fixed footer. The fixed features persist throughout the entire website, and gave me a theme to work off of for the rest of the site. In starting the design of the site, we broke the cardinal-rule of website design (which we hadn't known at the time), which is to design for mobile first. While we were able to make the website fully mobile compatible in the end, it was much more difficult and required much more work than it would have had we just begin with the mobile design initially.

My contributions to the project were all of the internal content pages that were designed. I ended up deciding to creating a few graduate content pages to show the design of these types of pages, as well as to try to show how we thought the information should be displayed and the navigation should be controlled. In order to make the site more easily navigable, navigation options are only displayed as they become relevant. The pages that I created were the graduate home page, the graduate admissions page, and the degree & programs options page. Navigating through these pages gives a good idea of what our vision was. Initially I had created these as 3 separate html files, but I later went back and condensed them into one html file, and dynamically generated the relevant html for each page. I did this because I wanted to add some animations to the side navigation, and needed the content to be generated without a page reload. To accomplish this I stored the relevant sections for each page (breadcrumbs, content, and footer) in a JavaScript object. In a production setting, I would have used AJAX/JSON to generate the content. However, I wanted the website to be able to be viewed without having to use a 3rd party application, like Apache (so AJAX was not an option). The entire site is completely mobile compatible. My portions of the site will accommodate mobile devices and tablets, both in portrait/landscape, as well as adjust to window resizing. CSS media queries were used to adjust the style for dynamic resizing. In addition, JavaScript was used to reposition the side navigation to the bottom of the page. JavaScript was also utilized for some of the finer details of the content pages (issues with the breadcrumbs during resizing and when the breadcrumbs exceeded the page width, etc.), all of which are described in detail in the grad.js file.

The best way to navigate through the site from the home page (/index.html) is to click on the "more info" button under the graduate section (or simply go to /grad.html). From the graduate home page, navigate to Admissions, and then to Degree & Program options.

There is one additional page that was added, as per the request of our customer, which was an undergraduate courses page. The goal of this page was to offer a way to filter the course listings based on a search criteria. JavaScript (ugrad.js) was used to dynamical depopulate and repopulate the course listings based on user input (course name/number or lecturer, for example). As I didn't have access to the Pitt's database that generated the courses, I was forced to copy the html directly from the site (as well as the CSS). This lead to a lot of compatibility issues with the current design of the content pages. While I resolved most of these issues, the main purpose was to show the idea of filtering the courses, so undergraduate courses page does not offer the complete functionality of the other content pages. In order to view this page, you must navigate directly to it: /ugrad_courses.html.

A lot of work went into this design, so it is possible that I missed some of the details. Please feel free to contact me at the email listed above with any questions or comments that you have!