Georgia Tech College of Computing New Career Fair Application

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Table of Contents

List of Figures

Introduction

The College of Computing hosts a bi-annual, strategic career fair that provides students with the opportunity to connect with hundreds of employers and to interview with companies that fit with their career aspirations. To prepare for the event, students rely on employers and career fair organizers to release accurate and detailed information about the companies and their recruitment portfolios, including specifics such as their attending day, offered positions, and applicant requirements.

The current College of Computing Career Fair application aggregates information recruiters provided during registration, usually a semester before the career fair. However, between the time that recruiters register and the actual day of the fair, this information becomes outdated and inaccurate. Often, recruiters will either forget their login credentials or lose access to that information, resulting in a lengthy process involving various administrative groups before any updates can be committed. Likewise, without access to specific recruiter credentials, career fair organizers cannot make updates to company information as they prepare for the event. Consequently, students are forced to rely upon inaccurate information as they navigate the fair, making the recruitment process inefficient and cumbersome.

This report covers the implementation of a new Georgia Tech College of Computing Career Fair application that presents data in a streamlined design and allows for the real-time editing of company information. The remainder of this report will (1) examine the landing page of the web application prototype and its various functionalities for students and administrators, (2) enumerate the methods used in the heuristic evaluation of this prototype, (3) highlight the findings and recommendations found during the evaluations, (4) propose a revised prototype based off of these findings, and (5) conclude with supplemental content in support of these findings.

Prototype

The overall company list, sorted by day attending, makes up the central section of the application's landing screen (see Figure 1). Users can filter the companies displayed on this list using the filter tab based upon details within the recruitment portfolio of each company. The tweets box contains announcements that are connected to the College of Computing's twitter account.
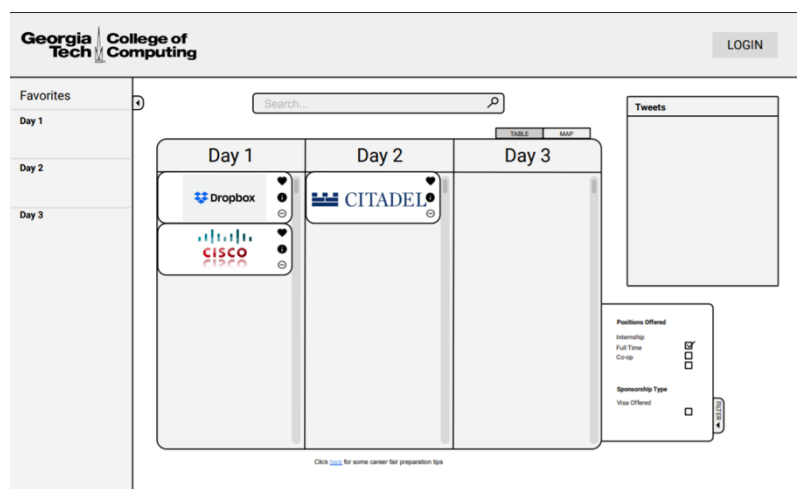

Figure 1: The application's landing screen

Users also have the option to favorite specific companies by clicking the heart in the upper-right corner of each list entry. The corresponding company will be listed by day attending in the favorites section of the page (located at the left panel) and can be removed by clicking the delete button.

Administrators can log in to the application (see Figure 2) and edit existing company information (see Figure 3) by accessing the company cards. These administrators will be provided an access code prior to registration to be granted account privileges.
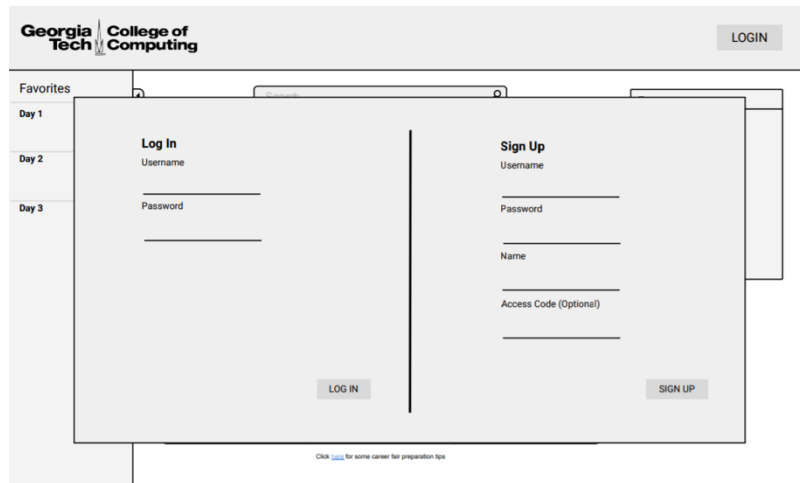
Figure 2: The registration and log-in screen

When the list item or the information button for a company is clicked, the company card containing recruitment information is displayed. This card can be closed when the user clicks outside its bounding box. If the user is logged in as an administrator, the user is also able to edit the information within the card. Figure 3 demonstrates this feature for an administrative user. Students will have access to the same page; however, they will not be granted permission to make updates to company information, and the edit button will be hidden from their view.
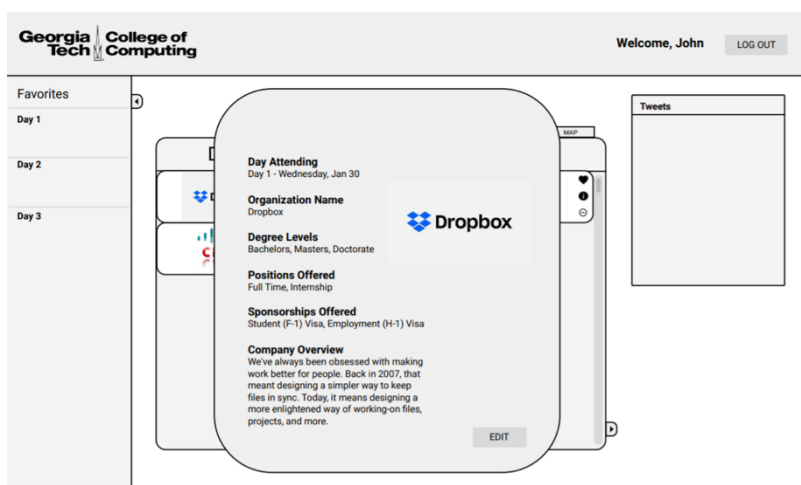

Figure 3: A company card from an administrator's perspective

Methods

The heuristic evaluation was administered by our team of five people and evaluated by two other teams. One person from our team served as the proctor and guided the user through the session. This team member was designated to read the script as well as answer any questions that the user may have. The user, a delegate from the evaluating team, controlled the flow of the evaluation through a laptop displaying the UI prototype. Even though only one person acted as the user, the entirety of the evaluating team was told to ask questions and give feedback.

Initially, the prototype was evaluated using the Fluid UI application, which allowed the user to traverse through the different prototype screens by clicking on elements within each screen. However, due to confusion with Fluid UI functionality, the evaluation ended up being performed manually, with the user "clicking" on images of the UI prototype and a member of our team displaying the resultant screen. The evaluating teams completed the heuristic tables using a Google document (see Appendix A, B), some taking notes during the evaluation itself and transferring them afterwards.

Each of the participants were asked to sign release forms in order to participate in the filming of the heuristic evaluation. While the other members observed and answered questions, one member of our team filmed the evaluation process to be used for research and included in the final presentation. Throughout the 10 to 15-minute evaluation, the following scenarios were examined:

- Scenario 1:
    - For this task, you are still a student, and you want to look at a company's information. Open to see one of the company's information.

- Scenario 2:
  - For this second task scenario, you are a student at GA Tech attempting to find two internship positions. Companies are listed on the page in front of you, and you will be looking for companies that will be attending the career fair on day 1. Find and favorite two companies that offer internships on day 1
- Scenario 3:
  - For the third task, you are now an assistant at the Career Fair and have been instructed to register on this website.
- Scenario 4:
  - You've now logged into your assistant account, and you want to edit a company's information. That company will now be attending on Day 2, will be seeking Co-op and full-time positions, and wants to specify that they only have positions available in Australia.

Our team also performed additional research using an academic journal accessed through the Georgia Tech Library. We started by viewing Human Resource Journals that discussed career fairs, which led us to the article "New App Guides Students Through Spring Career Fair". The paper discussed how Wake Forest University developed a new application that aided students to feel more comfortable and empowered through an improved UI and convenient features. Students using this application gained confidence and in turn performed better during interactions with employers. Our team used this research as inspiration for some of the application's more student-focused features, as requested by our client.

Findings and Recommendations

We have identified two core problems with our initial design. The first core problems stemmed from the way we presented our company list and favorited companies' sidebar. We assumed that students would want to browse companies listed by the day they were attending the career fair and therefore segmented our company list into three columns, each column corresponding to a different day of the career fair. However, in doing so we created a source of confusion, as the functions of the more traditional single column list layout of our favorites bar was easily mixed up with the company list itself. The heart icon used to favorite companies, which was filled in by default, added to this confusion. This filled black heart suggested to our testers that the companies in our company list were already favorited when the opposite was true.

Our findings suggest that we change our company list from three columns to a singular column and add an option to filter companies by day. These changes would also benefit the visual design of our favoriting heart by freeing up space for its icon to be bigger, another complaint we received, and emptied out, an effect only afforded to us by the larger shape border we can achieve with this extra space. In addition to these changes, we should also add the ability to favorite companies directly from their profile, and unfavorite companies directly from the favorites list. As was pointed out by our testers, our initial prototype had omitted these two important convenience features. These changes are high priority

The second core problem our revealed in our heuristic evaluation involved our login and registration process. However, we received mixed data on the severity of these issues. For context, our login page also contains the option to register for an administrative account.

All our testers did manage to locate the feature, but some thought that perhaps a separate register page and corresponding button would have been more appropriate. Others saw no fault with this design, commenting instead that it was standard practice.

Going forward we will need to investigate other systems and best practices to determine which of these approaches would be best. There is a possibility that this issue might be more of a language problem than a UI specific problem. It might suffice to simply standardize the way we present our third user task. We could simply say "Login as an Admin user" instead of "register an admin account" as there is no actual need for the temporary admins that would utilize this feature to register real accounts. Temporary administrators simply input their name along with a temporary admin code to access the system with proper credentials. There is no actual account tied to their names.

Other aspects of the admin user experience also warrant revision. We have received feedback that there might need to be more of a visual distinction between operating the system as an admin and operating the system as a student. As of currently, our system indicates that a user is an administrator by welcoming them as such in our top bar. We could leverage more visual cues to make this distinction clearer. For instance, when an admin is in use of the system, their view of the sites background could be a light grid pattern instead of the clear solid color it is now. We could also place a box around the site, when viewed as an admin, to suggest a sort of peering behind the scenes. Though potentially beneficial, we have determined that this change is not critical. A more critical problem is adding a more explicit means for admins to undo their changes to the site. Currently, for an admin to cancel a change they have made to a company profile, they would need to simply exit out of that company profile without saving their changes. Adding a button to cancel these changes instead is necessary to make this core functionality explicit and clear.

Revision of Prototype

As per the recommendations given during the heuristic evaluation, we have made a few adjustments.
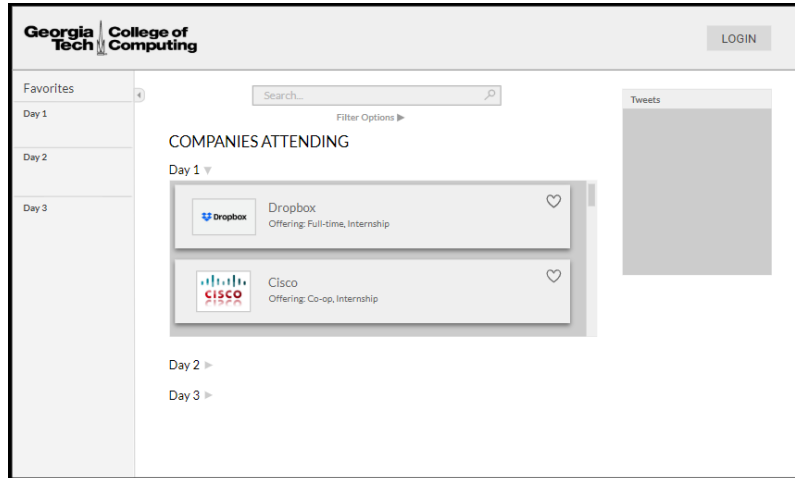

Figure 4: Revised Prototype

First, we changed the heart symbol from a solid black heart to a heart outline as several students commented that the solid color, as shown in figure 5, made them think the company was already favorited. Once a student has favorited a company, the heart will be filled in with red. The revised version is shown in Figure 6.
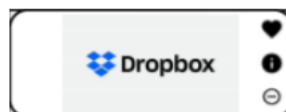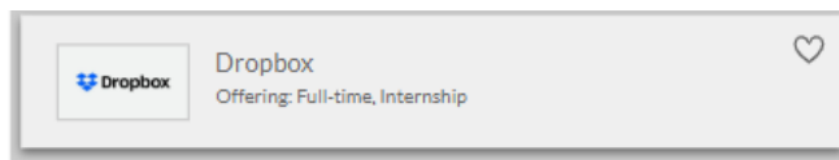

Figure 5: Original Heart/Favorite Symbol

Figure 6: Revised Heart/Favorite Symbol

Another change was to place the "Companies Attending" title and change it to a more traditional list format. Many of our classmates thought that the original homepage in Figure 7 was a list of companies you have selected as opposed to a list of all companies attending. We hope that by labeling it and changing from the 'schedule format' to the list format shown in Figure 8, the purpose of the page will be easier to identify.
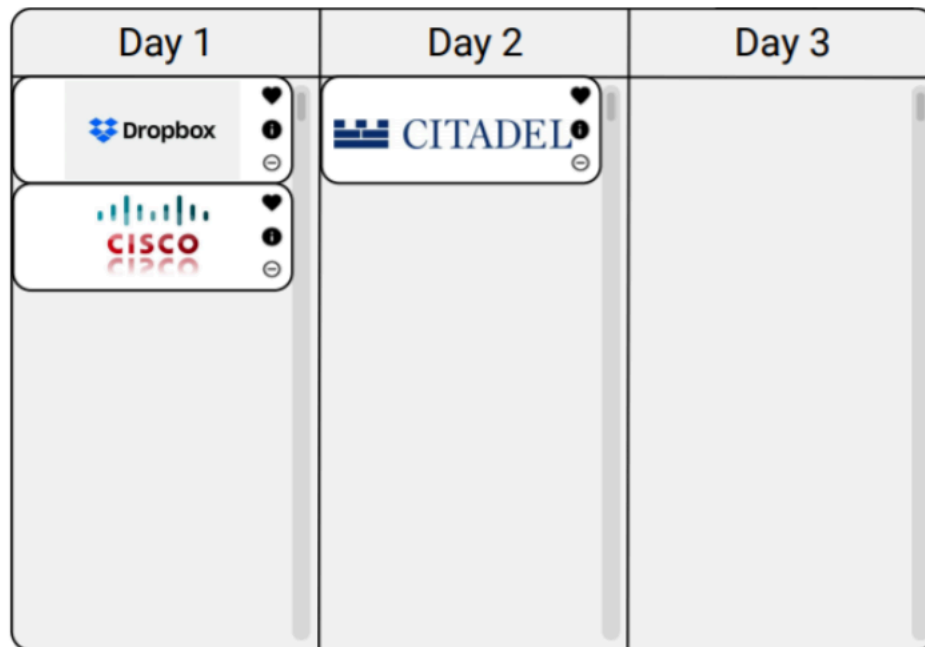

Figure 7: Original Company List Format

Figure 8: Revised Company List Format

Finally, we observed that the filter tab in the original prototype in Figure 9 is not noticeable. We have moved it to the top of the page, below the search bar, so that it is in a viewable area and users will be more likely to notice it. Once the arrow shown in Figure 10 is clicked, the filter options will appear below the search bar as well.
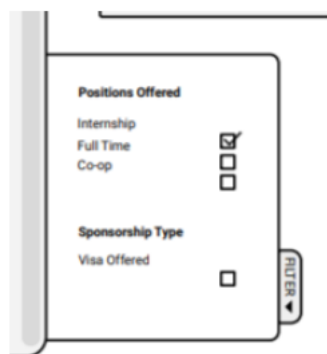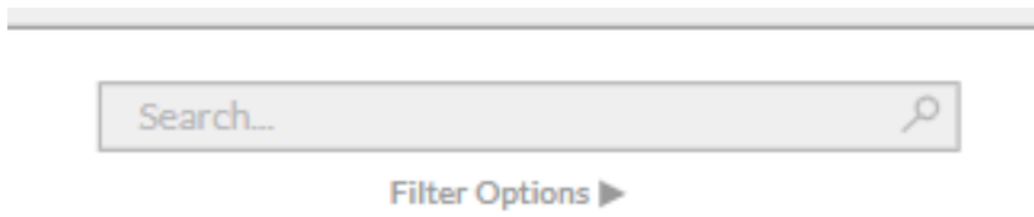

Figure 9: Original Filter Format

Figure 10: Revised Filter Format

Works Cited

[1] Wallen, Rachel, "New App Guides Students through Spring Career Fair, " in *University Wire*, Jan 23, 2014. *ProQuest*, http://prx.library.gatech.edu/login?url=https://search-proquest-com.prx.library.gatech.edu/docview/1491171742?accountid=11107.

Appendix A: Heuristic Evaluation Form 1

Facilitating Team (Prototype Owner): JD 9200 (Career Fair App)

Evaluating Team: JD 9201

Evaluation Date: 7/1/2019

	Task 1 - View Company Info.	Task 2 - Favorite Internships	Task 3 - Register and Login	Task 4 - Edit Company Info.
Visibility of system status	List items are not clear they are companies	Thought favorites and companies listing were switched	Login is clear	Clear edit button
Match between system and the real world	List items make it seem like there's a certain amount set. Should show a larger list to make clear that those are all available companies	Thought tab day 1 under favorites was a button that would go to day 1 and show all companies available on day one	Differentiate regular user and admin	Would the admins really be writing company info rather than the company itself?
User control and freedom	Backing out by clicking outside box can be unclear would still add a cross	Can any amount to favorites	Amount of control is expected and fine	Lots of freedom
Consistency and standards	Standard click on something for info. Good	Can you sort the favorites by anything? Or is by when you add	Must press sign-in to register though is standard after that	Edit button is standard
Error prevention	No immediately clear way to exit if accidentally click. Add exit button have the back arrow function	Cannot delete favorites from the favorites menu must find company again	How to prevent non-admins from making admins?	No cancel button to not save changes

	Task 1 - View Company Info.	**Task 2 - Favorite Internships**	**Task 3 - Register and Login**	**Task 4 - Edit Company Info.**
Recognition rather than recall	More prompts on what to do and what is possible	Labeling is clear	Clear standard login, easy to recognize	Clear standard edit button, easy to recognize.
Flexibility and efficiency of use	Can you click on them to get info from both favorites bar and main list?	Want to favorite while looking at company info, have to close out	Efficient standard login. Not sure if there can be any additional login options for this.	Can edit any company
Aesthetic and minimalist design	Design and spacing of company info was well designed	Very simple, nice	Simple standard login	Simple edit boxes, clear
Helps users recognize, diagnose, and recover from errors	Easy to recover just exit pop over.	Easy to recover click same heart button to unfavorite	Was not shown but appropriate error warning on login i.e. account does not exist, wrong password etc.	Version control was mentioned, maybe use that to prevent errors
Help and documentation	No instructions, some would be helpful for first time users	None	None	None
Additional notes	Perhaps have a help tab	Filter only favorites in main schedule	Good, very simple	Good, it is only confusing when we didn't understand who an admin was

Overall: Good design. Takes some getting used to. Having more explanation or a help tab would be nice.

Appendix B: Heuristic Evaluation Form 2

Facilitating Team (Prototype Owner): JD 9200 (Career Fair App)

Evaluating Team: JD 9202

Evaluation Date: 7/1/2019

	Task 1 - View Company Info.	Task 2 - Favorite Two Internships	Task 3 - Register and Login	Task 4 - Edit Company Info.
Visibility of system status	Pop-up window is nice.	Black heart is confusing. Initially thought that they were already favorited. Empty heart would be better.	Login vs Register is very clear with separate sections	Indicate at top of website that you are an administrator with exclusive privileges.
Match between system and the real world	Black heart may be confused with already favorited companies. Heart should not be filled to clearly indicate that a company is not favorited.	Heart does indicate favorite, very intuitive.	Separate Register button would be more intuitive for registration	
User control and freedom		Buttons to favorite are very small.		
Consistency and standards				Consistent with UI look from task 1.
Error prevention				
Recognition rather than recall				

	Task 1 - View Company Info.	**Task 2 - Favorite Two Internships**	**Task 3 - Register and Login**	**Task 4 - Edit Company Info.**
Flexibility and efficiency of use	Clicking anywhere on the company name opens more info. Very intuitive	Lacks the ability to favorite a company from the company information page.	To register, you must first click on "Login", suggest making that a "Login/Register" button	Indicate at top of website that you are an administrator with exclusive privileges.
Aesthetic and minimalist design	Favorite button seems clicked. Main menu appeared to be favorited companies and not all companies.	Very nice with minimal text.	Login was clean and clear. Nothing unnecessary.	Yes
Helps users recognize, diagnose, and recover from errors	Lacks a clear way for users to leave the info page.		No "confirm password" field, which may lead to accidental errors	Lacks a way for users to leave edit page. No confirmation for discarding unsaved changes.
Help and documentation				
Additional notes		Filter button is way too small. Should be placed near search bar. We didn't even know it existed until the facilitating team pointed it out.		