URabroad

Final Capstone Report: 5/10/2017

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BACKGROUND

We added the rest of the functionality and changed the front-end design. Users can upload photos to change their profile picture using the Imgur API, search for users by country and major, or search for posts/questions using tags. In addition, users can update their account information, such as their profile photo, class year, status abroad, major, and their biography.

We also designed the large poster for the presentation and sketched the launch party flyer, recruiting the help of Som Liengtiraphan to draw our sketched flyer in Illustrator. We completed the production and editing of the promotional video. On Thursday, May 4th at the Rettner Atrium, we hosted our launch party, during which we showed our video, demoed our website, invited guests to sign up and post content, and gave away free T-shirts.

ROLES

Marketing/Content Management Team

Jingwen Bian

I finalized the promotional video by swapping the new footage that we collected overseas, adding part of the demo video and improving the audio quality. I am also in charge of the publicity and logistics for the launch party. I promoted the event through Facebook event page, email contact lists, offline flyer posting and word-of-mouth marketing. I reserved the Rettner Atrium and helped with the event setup. I also designed the big poster for the final presentation and created slides with Yoonsie. After the launch party, I continued the effort to ask students to sign up for the web app and provide us with constructive feedback.

Courtney Kuhn

I collected the equipment and assisted in recording the audio sections of our promotional video that needed to be edited prior to the launch. I printed and posted our flyers in areas where we could target freshmen in particular as a target audience who might have questions prior to study abroad research. I helped Joy finalize the big poster, editing text, and reconfiguring some of the visual elements to make a journey-like map of information for our final draft. I helped set up the launch party and recorded several interactions students had engaging with our application for the first time.

Development Team

Yichen Lu

I continued to lead development for the team, delegating tasks to Zoe and Yoonsie as needed via Trello. I found the solution for our issue with the databases and continued to fix the persistent login for our users. I contributed to the styling of our existing components and creating more React components for the Feed as well. I also worked on backend development, adding functionalities for making posts/adding questions, commenting on posts/questions, tagging posts, and with troubleshooting the image upload issue using the Imgur API. Finally, I led the deployment of URabroad using Heroku App.

Yoonsie Kim

My main role being front-end development, I revamped and improved the appearance of the website, including the sign up/login forms, feed and profile pages to maintain a consistent look for the website and to improve the user experience. I also added responsiveness to the website, specifically for the feed, profile, and navigation bar. I made any other development or design changes as needed and assigned to me by my technical lead, Yichen (such as making a method to change from major codes to actual major titles, or changing from country abbreviations to the full title, etc.)

I also helped with other aspects the project. I edited the video that is used as the background for the landing page. I oversaw that the marketing team was promoting the launch party, wrote the Facebook event description, and sent reminders of deadlines for tasks such as the big poster. I also made suggestions to Jingwen to promote the event through emailing lists (DMS, International Relations majors who are required to study abroad, Weekend Highlights, Facebook Class pages, etc.). For the launch party, I helped Jingwen set up at Rettner, bringing food, T-shirts, and other supplies as needed. I also wrote the survey and emailed it to all students who registered accounts on URabroad; in order to improve our site we will use their feedback and critiques/evaluations. Finally, I am in charge of making sure everyone writes their parts for the final report.

Zoe Tiet

I was working in both front-end occasionally (converting pages to Semantic UI framework) but mostly backend. I worked with Yichen and Yoonsie to learn React and Django REST Framework alongside Semantic UI for our front-end. I mostly learned from Yichen's examples and began to extend some of the React components and APIs so we could work in parallel. In particular, I helped with the editing profile/settings, uploading image to Imgur API, editing posts (in terms of up/down votes), and hooking up information from the user table to profiles. I helped with deploying to Heroku, mostly figuring out some of the issues and bumps we had along the way.

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TASKS COMPLETED

Marketing/Content Management

Flyer for launch party

Zoe thought of sketch for the launch party flyer, but since we do not own a drawing pad, we asked Som Liengtiraphan to draw our sketch on Illustrator. We used Som's drawing for our launch party flyer, who gave us permission to use her work.

Presentation poster

Using a screenshot of the URabroad homepage, Jingwen designed the presentation poster. Following the suggestion from Professor Jarvis to add the photos of members, Courtney used the photos as "users" next to the points detailing the what, how, and why of our project.

Promotional video

We finalized the video by swapping and adding new footage. We also edited the audio and completed other suggestions from the critique session.

Launch party

Jingwen reserved the Rettner Atrium for the launch party and promoted it by sending the information to people in charge of email lists (e.g. Heather Morens for DMS, returnees of fall 2016 etc.); she also arranged a time to meet with Patrick, who is in charge of A/V, and tested to ensure that both would work in time for the launch party. We also set up by bringing food, drinks, and T-shirts, and were able to get pizza after contacting the Education Abroad office who funded it for us.

Development

Login authentication with Django

We successfully added password hashing, which previously gave errors. In addition, when implementing the update profile functionality, additional errors were discovered, and we moved the password hashing to the result hashing file instead of the database model creation file.

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Tag functionality

Users can now add tags to their posts or questions, separating each tag with a comma. We added a "Popup" suggestion to users, so they can add a tag for their current study abroad program (if applicable), which will allow students to easily find others who have already completed the program in which they have interest.

Photo upload

Users can upload photos to change their profile picture using the Imgur API. We chose Imgur for its cloud storage capacity; after uploading, we receive the uploaded link and save into our database, saving us a lot of space. This extends onto our posts, in which we upload and save the URL to the post itself decreasing overhead for storage.

Multiple-search functionality

Users can search for students by typing in a major or country. Multiple tags can be used by separating search terms with a comma. Users can also search for posts or questions by filtering with any tags that other users have already created (e.g. program name, topic, etc.)

Upvote/Downvote

We developed the backend and frontend for a simple upvote/downvote system, and users can upvote or downvote posts/questions found on the feed, which in turn impacts the popularity. The most popular posts (in a very simple ranking system) show up on the sidebar on pages dealing with posts.

Account updates

Users can now update their profile picture in the Account Settings page in addition to their class year, status as a study abroad student, and write a short paragraph about themselves in their "bio."

Peer advisor status

After speaking with Mina, who develops for the Education Abroad office, we added an option to add a Peer Advisor code to the signup page. If users are a peer advisor, they can enter this code, and their profile will have a label denoting their status as a peer advisor, adding more credibility to their posts, while also giving other users more confidence in their responses and adding legitimacy to our website.

Profile

We successfully connected all aspects of the back end to the front end interface for the user profile page. Users can look at their own page, or click on a username to go to another user's page. They will see the data that was queried from the database, such as their name, class year, major, location they studied abroad or are interested in, biography, and their posts and questions.

Frontend Development

Using CSS3 and React Semantic UI, we changed the look for most of the pages (sign up, log in, feed, and profile) to maintain a consistent look and feel, also improving the user interface/user experience. We also developed front end for other components, such as the label for the peer advisor, upvote/downvote, and other changes as needed.

Deployment

We deployed using Heroku, since we asked Nora Dimmock, Assistant Dean for Information Technology, Research & Digital Scholarship if we could host on the University of Rochester server (because Education Abroad office will not). She approved our request, so for our beta-testing website, we decided to use Heroku.

ISSUES

Marketing Team

Logistics for launch party

We had some logistic issues at the launch party. For example, we ran back to the Sage to change the tripod so the event setup ran a bit late. The connection to the TV screens at the Rettner Atrium did not work at first. We learned to plan everything beforehand and always have a backup plan once something goes wrong.

Offline flyers

We asked Som to help draw the invitation letter for our flyer. We waited for her design so the offline publicity started late. We did not have enough time to send the large print of the flyer. The lesson is to schedule things earlier so everyone has enough time to prepare for it. The timing for publicity is tricky. On the one hand, you don't want to start too early so people forget about it when the date is close; on the other hand, you don't want to publicize the event late, after people already have plans for the day.

Development Team

Imgur API

Sometimes the profile picture would update, and other times an image that is not our set default image would show up. We were able to resolve this bug after realizing the issue was partly due to the state of our React app.

"PUT" vs. "POST" request issue

There was an issue when doing our Imgur API call, due to the usual "PUT" request to update versus a POST. However, this returned weird unknown method errors, so we rolled backwards and went with a POST request which did exactly as we wanted anyway. Typically, this could have been a bigger issue had the API required only PUT requests, but since the API we were developing was our own to update our tables, we had more freedom and flexibility.

Merge Conflicts

We encountered merge conflicts at times, but having dealt with them before, we were better equipped and prepared when dealing with them. We usually looked for the head where the conflict occurred and made the modification accordingly to the changes that we desired, after pulling the changes someone else made.

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We had issues with deploying the website on Heroku. Since we had no prior experience to creating a web application using Django and React, we had to search online to find out how. After multiple failed approaches, we decided to deploy the server and client as two separate applications that communicate to each other. By following this simple approach, we were able to deploy successfully by the launch party.

OVERVIEW

| URabroad Timeline	
SEP - OCT	- Form team, meet faculty & EA staff, research
NOV - DEC	- Research, define requirements, personas, frameworks, mockups - Shark tank pitch
JAN - FEB	- Set up development environment - User testing
MAR - APR	- Development - Marketing materials
MAY	- Product Launch

UI/UX DESIGN

Frameworks Sketches
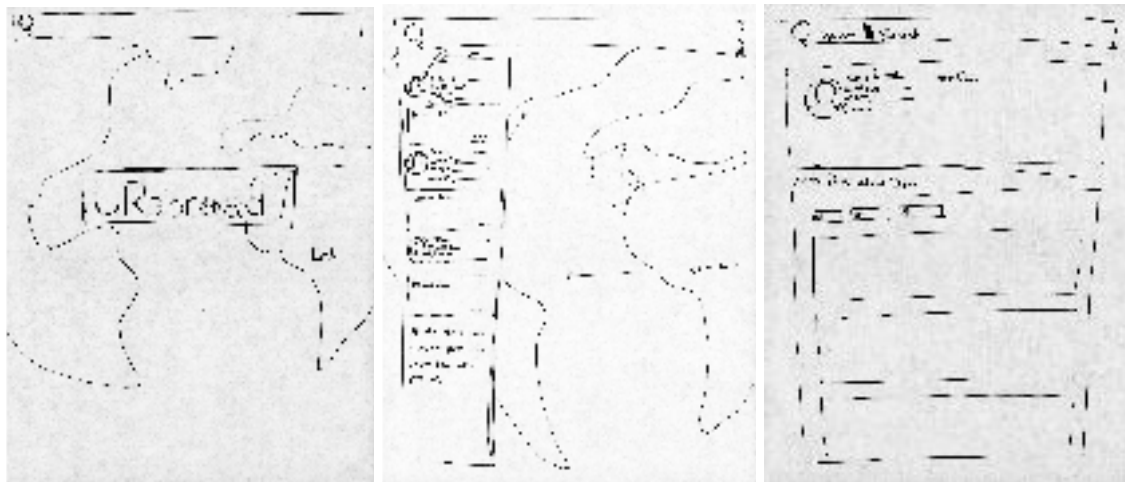
We sketched out the fundamental functionalities our web application would have, and they have not changed since these first paper sketches. Since the ideation of our project, we wanted students to be able to search for former study abroad students by location and major and be able to view students' posts and information
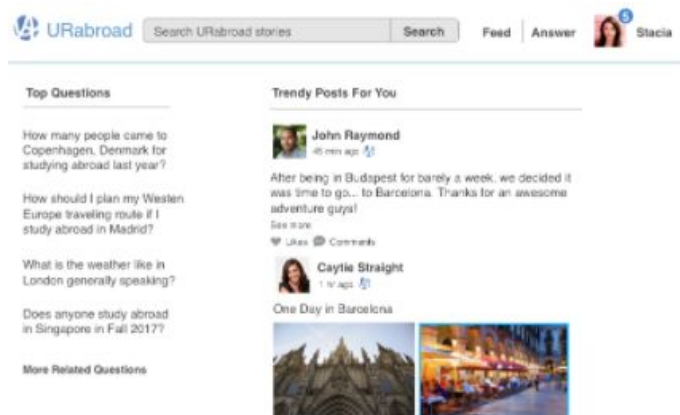
Prototype
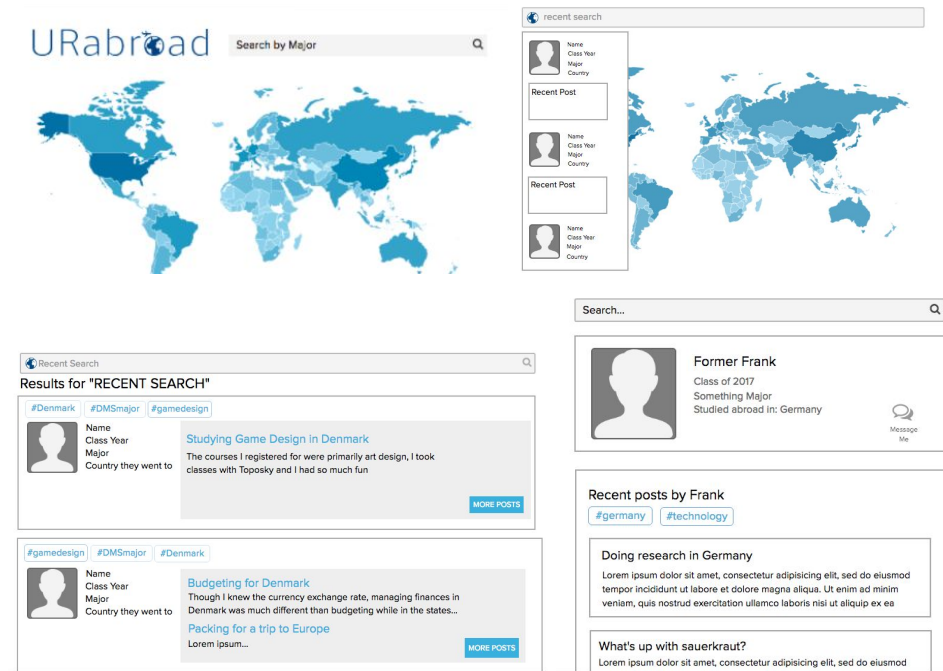
Using the paper sketch frameworks, we created a clickable prototype using SnapUp and MarvelApp. We also began user testing to see if students found the map necessary. After receiving feedback, students liked having the map as opposed to just having a search bar.
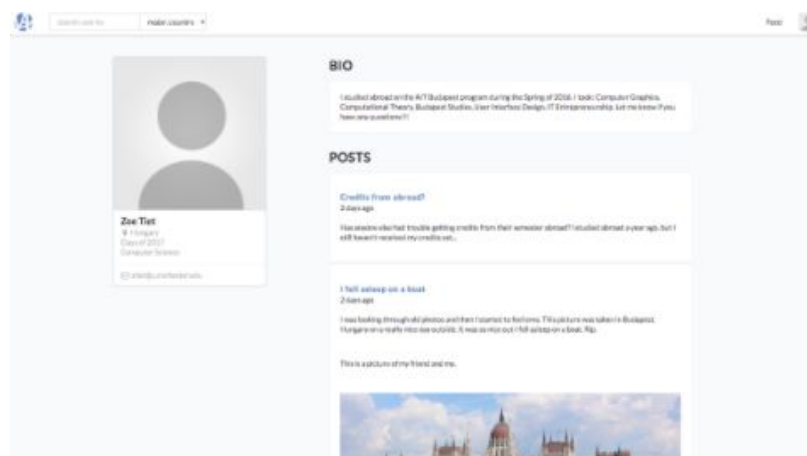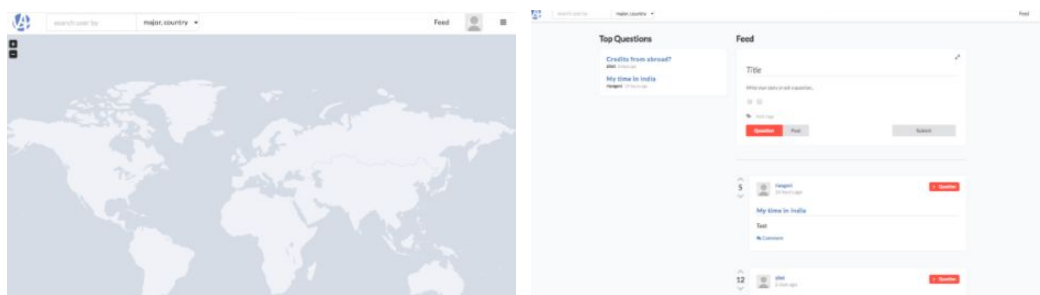
Mockup
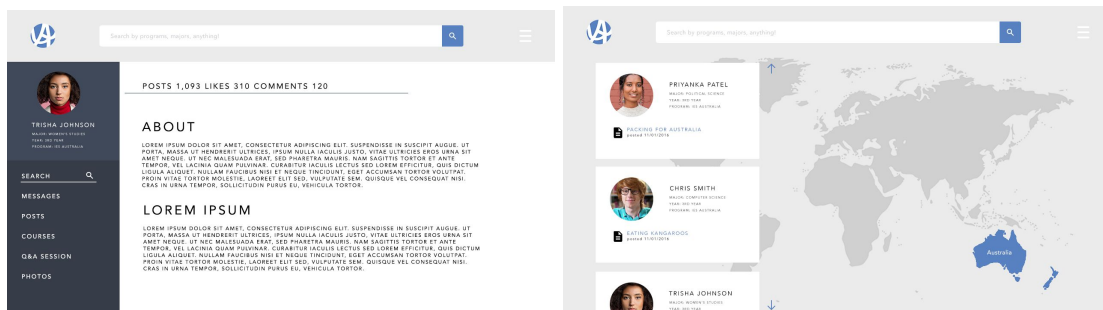
The development team created a high fidelity mockup in Photoshop for the home and profile pages. We later used this mockup to develop the front end using Bootstrap; however, after discovering React Semantic UI framework, we decided to change the look of our website to something whiter and simpler.

High-fidelity prototype

       We wanted to create and test the feed page design we sketched out, so the marketing lead created an interactive, high-fidelity prototype using InvisionApp.

Final Product

       A culmination of the sketches, mockups and prototype on InvisionApp, the final product maintains all the basic functionalities we planned in the beginning phase of this project. We changed the look to be cleaner and minimalistic as per our InvisionApp prototype and the framework we chose. As seen, we have all the major functionalities we planned out: the map, feed, and profile page.

Marketing Milestones	
Outreach	Contacted Education Abroad Office for the name list of students who have been abroad and are interested in going abroad
Email contact list	Emailed prospective students interested in studying abroad, gauged interest in joining focus group for URabroad
User testing	Created the web interface for content page using InVision and sent out links to students to test the ideas and features
Promotional video	Collected footage from students who are currently abroad, interviewed students who are interested in going abroad and finalized the collaborative promotional video with URabroad's features and demos
URabroad merchandise	Reached out to different vendors and got quotes for the promotional t-shirts and luggage tags. We chose an international trader who did the customization of the t-shirts design for us, and luggage tags were out of the budget
Offline flyers	Made the flyer by using Som's graphic drawing of the URabroad invitation letter, printed them out and posted around campus
Launch party	Organized the launch party - sent out invitations to students and faculty, created facebook event page and all other marketing materials
Presentation poster	Designed the presentation poster by using our landing page. Explained the what/why/how of URabroad web app to our audience

Development Milestones	
Set up	Set up the development environment and wrote docs using Django REST framework, PostgreSQL for database, and React-Redux
Models	Created models for users (net id, email, class year, &c.) for the database
JVector Map	Added a vector map for the homepage compatible with React, w/ clickable functions
Landing page	Received footage from students, edited footage, designed landing page, and set up signup & login functionalities
Homepage	Linked click on a continent to a sample "post", and made navigation menu bar
Feed	Added post, comment, voting functions, and sidebar for top questions/posts. Added tag functionality so users can add relevant tags (e.g. program name)
Profile	Retrieved user data from database and connected to the front end
Imgur API	Used API to have users upload and change their profile pictures (having it work on all pages was a challenge but an important milestone)
Settings	Updated account into (profile photo, abroad status, class year, major/program, bio)
Search	Added search for users by typing in one or more countries and/or majors Added search for posts/questions using tags students can add to their post
Deployment	Used Heroku App to deploy the app temporarily, talked with Nora Dimmock to discuss hosting it on UR server (b/c EA office will not)

Self-Assessment of Final Outcome

Marketing/Content Management

Last semester, we contacted the Education Abroad Office about our idea for a web app that could potentially serve students who want to study abroad. We were able to meet the staff at the EA Office on a regular basis and send them reports to keep them updated about our progress. As the main resource and stakeholder of our project, the EA Office gave us so much support in student connections and suggestions on potential features of the web app.

We met every deadline that we set at the beginning of the semester in terms of marketing progress. We were able to reach out to students who are currently abroad and collected a variety of footage from different countries. It was a very collaborative video project, and we were glad to see the positive response from the students who watched the video and were excited about the launch party.

Logistically, we think we could do better if we planned everything ahead of time. The promotional t-shirts took longer than we expected to be shipped to Rochester, and the design was not exactly what we hoped for. There were some miscommunications between the vendors and us, but we do think it was a good lesson to learn. We not only have to follow up with tasks, but also follow through the whole project.

Overall, we believe we did a good job because even though we encountered several unexpected hurdles, we were very flexible in coordinating with one another and adaptable in our problem-solving.

Development

We were able to add all the main functionalities that would make our website application unique and useful to students at the University of Rochester: Searching for users by major and/or country, searching for posts/questions based on tags, adding tags to posts/questions, posting/commenting on the feed, and browsing user info on their profiles. We were also able to add the expected functionality of all websites, such as updating user accounts, uploading profile pictures and uploading pictures or videos to one's postl.

Given that we had to learn the web stack from scratch without any training and the circumstances--full-time students with part-time jobs, looking for jobs after graduation and interviewing--we are proud of accomplishing the fundamental functionalities that we first planned in October/November. We achieved all the goals we set on previous progress reports, and although we could not add minor detailings that would improve our site (e.g. email verification, Q&A sessions), one of the main skills we learned from this capstone project was managing expectations. Even in the real world, there are times when you cannot meet a deadline for your client or for your boss, and it is imperative to manage your expectations and be able to communicate with them what is realistic and what is not.

BEYOND DMS 373

Future potential development

These are some features we wanted to add but could not due to time constraints:
- Email verification: Send a verification email to users to "activate" accounts
- Limit to UR emails: Only emails that end with rochester.edu can register
- Password check: Checking for a minimum number of characters or requiring a capital letter and/or number to make the password stronger
- Reset password: Users can reset password with an emailed verification code
- Q&A sessions: Students who have been abroad can hold "Q&A" interview-type sessions where people can ask/answer questions live
- Courses: Students can talk about courses in a post or in their bio; however, we want to add a "courses" to their database models so students can have it on their profile at all times, so they can be found easily

Sustainability issues | Future

After the development team graduates, sustaining URabroad will be difficult as we move on to full-time positions. In order to address the issue of sustainability, we are passing our project onto the Education Abroad office's development team, in hopes that it will be a useful tool for UR students. Additionally we are currently talking to Nora Dimmock to host the website onto a UR server, because if we host on a plan that we purchase, the website will die with us. If it lives on a UR server, it will be easier for the Education Abroad office to maintain. We are documenting everything of the web app development, so it will be easier for the EA Office to take over.

Currently, our technical lead, Yichen, is interested in helping maintain the website part-time, which is one possible solution to addressing sustainability issues. Ultimately, however, If the service proves to be successful and useful for students, the Education Abroad office will maintain the website. A large part of its success will be the marketing/advertising of the service. Currently, only a small group of students are aware of the web app and the website itself will serve a specific purpose for a niche community.

SKILLS & INSIGHTS

Jingwen Bian

Market research

I was taking market research and analytics course while we formed our capstone group at the beginning of the school year. I am glad that I could apply my knowledge and experience in qualitative market research. I conducted three in-depth interviews with students who have been abroad, asking their personal experience from a lead to an alumni. During a group meeting, we were able to summarize the problems we identified during the interview, organize the thoughts and ideas and move forward to the design phase. This also helped me to come up with the idea to form an online focus group, which helped when choosing T-shirt designs and creating prototypes.

Interface design: Sketch

I heard about Sketch but never used it on my own until I started this capstone project. Sketch is widely used in the mobile design industry, and a lot of design features are very intuitive. When I used Sketch to design the content page for URabroad, I explored a lot more its features that are easily applied to not only web app design, but also tablet, mobile, and TV. A lot of built-in icons are also useful to give me an idea of the dimensions of each component on a specific interface. This is definitely a useful skill to acquire.

Interactive design: InVision

I took the advantage of my last semester of being an undergraduate student to register for the education account of InVision for this capstone project. It was a great learning experience, especially since a popular application for a lot of UI/UX designers. InVision has a lot of built-in components that designers can use to form a simple mobile/web app interface. Using this capability, we can add interactive features to each interface, send a link to the users, and test their reactions. Also, creating interactive prototypes is an inexpensive way to test whether the product will become popular in the market or not. "Fail fast" is the concept I learned: Invest a small amount of money to create a visualized interactive product and gather a focus group to use it. If it doesn't work, change it to something else. Our user testing phase may not be as complicated as industry practice, but the testing process and ideas are similar.

Collaboration skills: Trello

Trello is a great collaborative platform to keep each member of the project accountable. Although our development team used this platform more often than the marketing team, getting a little experience in using this platform will definitely help when we land a job in the real working environment, as I do know people who work at small and medium-sized companies love to use Trello.

Insights in international education: a niche market

Studying abroad is such a niche market but becomes more popular in recent years. I definitely can see this scale up and become something that benefits both the study body and the University. During the research phase, I noticed that there is a information and resource platform in the field of international education such as GoAbroad, customer relationship management tools such as Terra Dotta, Via TRM, Horizons, and etc., but there are few online communities that serve the needs and wants of students who want to study abroad. This niche market has huge potential if this type of social network can be built. My intuition is that the network will flourish at colleges and universities that have a diverse cultural environment.

Courtney Kuhn

Personally, I have always found the process of interviewing potential customers as one of the most educational processes in early development. When we conceptualized URabroad and predicted the biggest target audiences and what their problems were, we were using our own experiences and references which were subject to bias. Collecting information from a multitude of past/present/future abroad students gave me insight into which types of problems we'd need to focus on solving which strongly affected the consequent design priorities of the application. Originally more likely to be an educational blog rather than a social network, URabroad has evolved in unpredictable ways due to its clientele.

Design elements: Clean function versus dynamic visual

In designing the brand for URabroad, I found myself very often frustrated by the constraint of product-design standards. As a studio artist, I usually take the approach in making graphics as pursuing eye-catching intensity to the point of often becoming overbearing or uncomfortable. In designing a product meant to be used for professional purposes, I had to recognize that my usual approach would not necessarily be what's best for marketability, branding, or functionality. In designing an application, a balance is struck between attractive visuals and clean, clear, intuitive abilities.

Interactive design: InVision

This was my first experience going through and creating an interactive mock-up for a design. Joy showed me InVision and I found it incredibly intuitive to use. It offered several features that allowed us to take still images and animated them in such a way that it felt like a comprehensive and finished product. The software was easily accessible thanks to a special temporary student trial that allowed us to experiment with it until we could use it to the best of its ability. I will likely remember InVision in future projects and consider it for UX design processes.

Communication

One of the major learning experiences from my Capstone project was about lines of communication and how to choose which types of communication to use and when. A massive email to an entire population of current students studying abroad promotes a psychological diffusion of responsibility that makes people feel less individually motivated to respond quickly. And when we are on a time crunch looking for something

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very specific, it is a lot more effective to reach out to individuals and be very clear about what we ask them rather than vaguely suggest giving us support. Overall, the experience of contacting abroad students became a positive one because our focus group was narrowed by people who were actually interested in URabroad, as proved by their voluntary joining of the focus group on Facebook.

Communication also ties into general advertising and public relations which became a surprising opportunity to get creative. Not in just the advertising itself, but pursuing how to advertise. Other than basic posters and facebook events, reaching out to people via personal networks and finding out about the different unique advertising opportunities offered on the campus (university computer screensavers, television displays in public spaces, etc.) These were unexpected resources available to tap into and provided a good example of the benefits of researching campus standards of event sharing.

Yichen Lu

User research

I learned to create surveys and conduct interviews in ways to avoid bias and get the most input from our target audience. I reached out to people around me that fit the criteria of our user base and it was interesting to apply things that I learned in the HCI lab and from CSC212 (Human Computer Interaction) in an even bigger project and understand my users on an even bigger level.

Prototyping

It is my first time creating prototypes using Photoshop and second time using Marvel App. I showed the team Marvel in particular, which proved to be a useful tool not only in prototyping but for guidelines for our design further in the timeline. They proved to be really useful tools for UI and UX design. I plan on doing more with UI/UX in the future, so it was good to get even more exposure with these tools.

Design

I learned more about what makes a good logo when I designed the URabroad logo using Sketch. I was able to practice and learn more about UI/UX design when I worked on designing the website, looking at examples to see what works and what does not. We also got feedback between iterations and it was cool to be able to create something that was minimalistic yet captured the essence of our brand.

Technical Skills

I learned and practiced skills in Django REST framework, PostgreSQL, React, Redux. It was difficult to pick up at first, but it came easier as I applied it to real world uses, primarily our own application. I also learned to more about teaching others how to use certain parts of the application and practiced troubleshooting my own bugs as well as the others'. It helped me become a better developer, team player, and leader.

Team Collaborating Skills

Even though I have used Slack previously as a part of the HCI research lab, it is my first time using Trello. It proved to be really useful and enhanced our workflow. I also learned to collaborate with others and managing the production development flow. I was able to assign tasks and visually see how much was accomplished and how to move forward in moving forward with our development. Overall, I learned a lot and it will be useful for future productivity in the workforce when I apply this to working in an agile environment.

Documentation

I learned the value of documenting technical projects as I often referred back to documentation in our private GitHub repository to fix database migration changes and similar problems. I also found it useful to blog about the new things I learned about technologies I was using on my GitHub blog page.

Zoe Tiet

Research and needfinding

In the beginning of the school year, all of us helped with research and needfinding. I wrote down my own experiences with studying abroad as well as talked to friends or other people I spoke to about study abroad (either potentially or already). It was a fluid conversation about their experiences thus far, how they felt at the moment or looking at the past on how well prepared they were. I scribed down and let the participant speak as much as possible to use their own words to get meaningful information from their experiences.

Prototyping & Mockups

In particular, for our low fidelity we looked around a lot and used SnapUp for its collaborative nature. I previously had experience creating prototypes with Photoshop, so it was good to get even more experience to add to my portfolio. In particular, I was also well-versed in InVisionApp from previous classes and offered it as a solution but we also used Marvel as well.

React.js, Redux, Semantic UI

After getting started with some example components and seeing how they all interacted, React began to make a bit more sense. It was very hard (and continues to be hard) to understand the React lifecycle as well as its state and the manipulation of such. While developing, we definitely did not have the best practices always in mind. This, I think was unavoidable, but still a great learning experience. I think I definitely have to take what I have learned and be able to understand how to apply it in the cleanest way possible. On the other hand, I've worked with Semantic UI before, but just not with React. It was cool to see the difference in how useful it was in both contexts. Another tool was Redux (which is what helps us interact with APIs, specifically our own in the backend). It was interesting to see it all in different parts and definitely was a huge learning curve for me. Overall, I think learning these tools will be very useful in the future, especially with React as such a big and upcoming framework.

Django REST Framework, PostgreSQL

Getting started with Django was I think my idea and something I sort of regret when we started trying to deploy (haha). I think Node could've been much easier and still relevant to learn. Regardless, it was cool to be able to finally know more about the inner workings of Django as a framework, since it's one used by people in hackathons as well

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as corporate. I was taking a Databases course this semester and while we didn't learn PostgreSQL explicitly, a lot of the concepts transferred over. Django also takes care a lot of the nitty gritty stuff, so it must work you have to do is setting it up their way.

Trello, Slack

Slack was super helpful for the development team. We used it to share code snippets and it was good to be able to separate different topics we talked about and be able to reference them back again. Trello was useful to visually organize everything and have it make sense. It definitely helped to list everything we accomplished within a progress report period and facilitated what we needed to accomplish. Both tools were useful and I think can be applied beyond this project for future work.

Git, GitHub

While I mainly used Git Desktop rather than the command line, I do have some experience. I ultimately used the desktop application as a crutch (pure laziness), but we all learned a lot about version control as we went through many merge conflicts together. Experience with Git/GitHub is definitely useful, especially as it is a huge part of any development team.

Yoonsie Kim

Research/needfinding

I conducted six individual in-person interviews as part of the needfinding process. In order to avoid influencing the interviewees, I prepared open-ended questions, and asked follow-up questions, allowing the conversation to flow more organically in order to gain more insight. Making sure not to discuss my own opinions was an important part of the process to avoid bias, which would affect the research results.

Surveying/User testing

Similarly, I made sure not to make any personal comments or opinions to avoid influencing any users I tested to ask for feedback. When writing the survey I used the Likert scale, which is one of the most frequently used methods of scaling user responses.

Prototyping & Mockups

With SnapUp, Marvelapp, and Photoshop, I gained experience creating prototypes and mockups, which will be useful for my interest in full stack development involving UI/UX design.

React.js, Semantic UI

As I was focused on front-end design and development, much of my time was spent creating React components, using the Semantic UI framework, and changing the CSS. Though using a new tool like React has a learning curve, I think it further strengthens my resume and is related to my interests in full stack web development.

Design

As I worked on the front-end visual user interface of the project, I noticed that often I knew the design could be better, but I was not sure how. Looking at existing examples online and experimenting with different designs proved to be the most helpful. I learned much more about UI/UX design and development through this project.

Trello, Slack - development process

Trello became an essential part of the development process along with Slack. Trello and Slack both facilitate the development process by making it more tactile and visual and organized. Though the company I will work for likely does not use Trello, learning any tool for the development process is an essential skill for all technical careers.

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Git, GitHub

As we used GitHub for version control, I became more familiar with Git commands (as I prefer to use Git in the Terminal rather than the desktop application). Using version control in a team environment is mandatory for all developers, since all projects in the workforce will be collaborative, and I am glad to have practiced this skill.
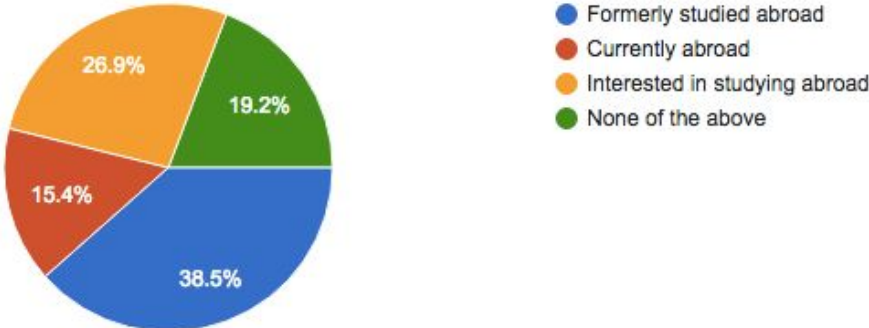
Project Management

In the fall semester, i was more involved as the project manager and secretary. I took meeting notes, prepared most of the progress reports, and sent out weekly emails delegating tasks for each group member. In the spring semester, meeting up with all five members proved to be impractical, and we split into two teams: Development and Marketing. As the informal project manager, I learned that (1) five members is too many in any group (2) most people will not take initiative and you must assign tasks to them and (3) even if you do, they may not complete it or do a subpar job. Granted, we were not paid for this project and it is an academic course; however, I learned more about delegating tasks to people and also managing expectations from both people and the project itself.
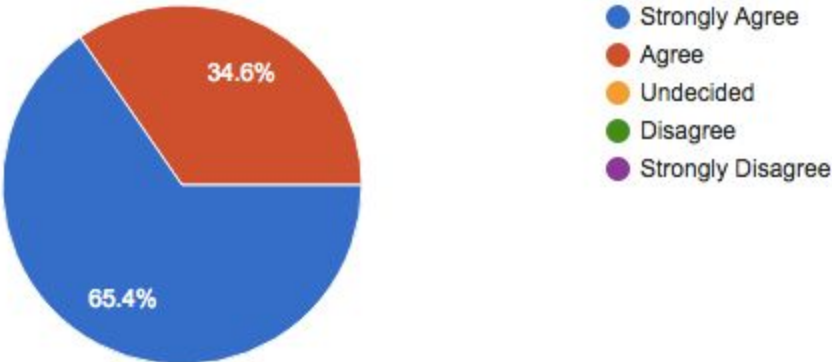
EVALUATION / FEEDBACK

User Feedback

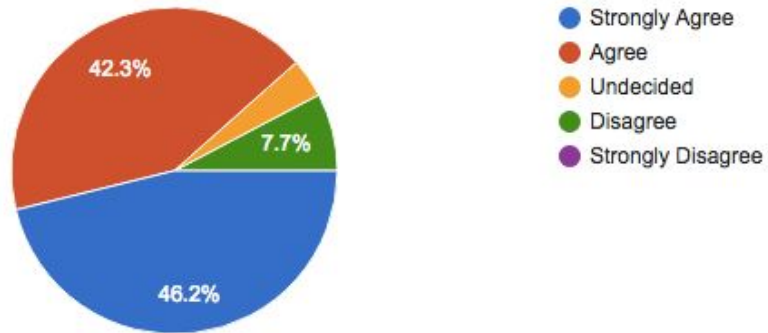## What is your study abroad status?
26 responses

- Formerly studied abroad
- Currently abroad
- Interested in studying abroad
- None of the above

38.5%
15.4%
26.9%
19.2%

I found the sign up process to be easy
26 responses

- Strongly Agree
- Agree
- Undecided
- Disagree
- Strongly Disagree

65.4%
34.6%

The User Interface/User Experience for URabroad is good

26 responses

- Strongly Agree
- Agree
- Undecided
- Disagree
- Strongly Disagree

x

Posting to the feed was easy

26 responses

- Strongly Agree
- Agree
- Undecided
- Disagree
- Strongly Disagree
- N/A I did not post to the feed
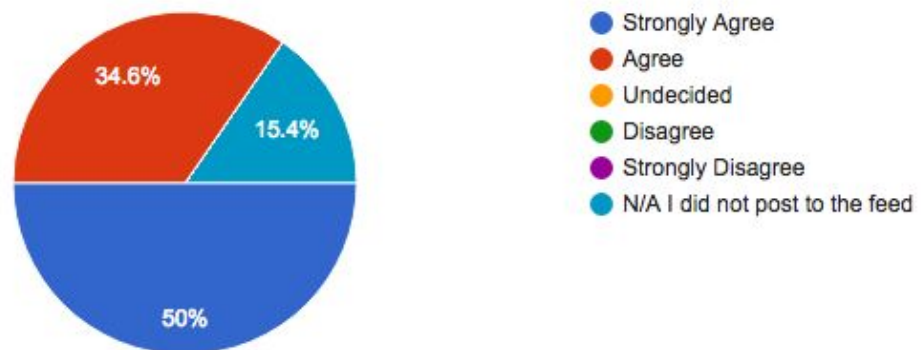
User Comments

"Have the 'Edit profile' to be more accessible, be able to create a post from homepage as well."

"Make a check for the password before submitting"

"Main screen is very simplistic - it seems like a simple forum for questions. Maybe organize information or a graphic layout with images of the places."

"I don't like that you can't see comments once they've been posted. It would be better if commenters could interact"

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SOAP Notes

The surveyed audience comprises 26 undergraduates at the University of Rochester, and of this group, 21 have either either studied abroad, are currently completing a program, or interested in applying.

Category	Data
Subjective	"Have the 'Edit profile' to be more accessible, be able to create a post from homepage as well." "Make a check for the password before submitting" "Main screen is very simplistic - it seems like a simple forum for questions. Maybe organize information or a graphic layout with images of the places." "I don't like that you can't see comments once they've been posted. It would be better if commenters could interact" "Map doesn't work sometimes"
Objective	- 100% of students believe that URabroad would be a useful tool, of those, 64.5% strongly believe so - 7.7% of students found the UI/UX difficult to navigate - 3.8% of students were undecided whether or not they liked the UI/UX design - 100% of students who posted to the feed found it easy, but 2 user comments note that there could be improvements to the feed
Assessment	All of the participants believe that the web application can be useful. A couple have suggested to make some of the functions easier to access. Overall, based on the feedback, the web app is extremely successful and satisfies most subjects and can even provide a better experience for users after making some minor improvements
Plan/Completed Actions	Completed by Yichen: - Fixed the issue of map not showing up - Reset password added Plan or tasks to either delegate or complete: - Have 2 or 3 comments visible in each post's thread - Add an input for password and make sure both inputs are the same - Add an easy way for users to post from the homepage as well - Easier way to edit profile - Find some way to incorporate images