

Pathseeker

Everyone seeks a different path. We can help you along yours.

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Problem Description

Students do not have enough information outside of their own network to make informed decisions about their career paths, and professionals do not have a sustainable platform to provide mentorship and career advice to those in need of it.

Solution Overview

We provide a platform for users to read, ask, and share advice from professionals about their careers so that they can gain a new perspective on these careers.

Tasks

Below, we will go over the three tasks for the non-professional user and the professional user within the Pathseeker application. We will start with the simple task, followed by the medium task, and end with the complex task for both users.

Non-Professional User Tasks:

Simple: Find a forum

To complete this task, the user needs to click on a forum that interests them within the forums tab. We wanted our simple task to be the core feature of the app, which is allowing users to have easy access to read forums about the different careers they might be interested in asking questions about. We also expect the majority of our users to read

more forums than they are submitting, thus also reinforcing the idea that this task should be our simple one.

Medium: Bookmark a forum

After completing the simple task the user will be inside a forum that they are interested in. From the forum screen a user must then click on the bookmark icon located in the top right of the screen. For the medium task, we enable the user to interact with the forum, which we allow through upvoting unanswered questions and bookmarking forums so that they can easily access the forum again later.

Complex: Ask a new question on a forum

To complete this task, a user must have first completed the simple and medium tasks. From there, a user must utilize the floating + button located in the bottom right corner of the forum screen to submit a new question. We wanted the complex task to be submitting a new question because this task required the most amount of effort and thought. We deemed this task as high in thought and effort because in addition to having to properly navigate the application, the user is required to generate an unasked question, and enter text to pose that question.

Professional User Tasks:

Simple: Update your profile information

To complete this task, the user must first click on the profile icon located in the navigation tab. This brings the user to the profile screen where they can then click on the button labeled "Edit Profile" to begin updating their profile with their information. We wanted our simple task to guide the user to the profile screen because this is the screen that the professional users will need to be in to complete the medium task of creating a profile. We also wanted this task to be easily executable for older professionals needed explicit text saying which button/icon is to update their profile.

Medium: Create a forum

Following the simple task, the user will already be on their profile screen where the “Create Forum” button is located. From there, the user must simply click the create a forum button to begin creating their forum. At this point the user needs to enter in their forum topic and description and then click the publish forum button. For this task, we wanted the actions required to not be too difficult because of how core this feature is to our application. Within this task, however, we did require the professional to type their forum topic which increases the time, thought, and action needed from the user.

Complex: Post a FAQ and answer it on the created forum

Following the medium task, a forum will have been created by the professional. For this task we want them to create a question on their own forum and then answer this question. This is a way for the professional to answer a question they know is frequently asked. This task requires the most amount of text and clicks, thus being our complex task. This task also requires the most thought from the user because of the generation of both answers and questions. We made the user generate their own question for this task because when testing we did not have an existing audience to generate the questions, but still wanted to test the answering of a question feature of our app.

Task Flows

Non-Professional User Tasks:

Simple: Find a forum



Figure 1: Task flow to find a forum

Medium: Bookmark a forum



Figure 2: Task flow to bookmark a forum

Complex: Ask a new question on a forum



Figure 3: Task flow to ask a new question

Professional User Tasks:

Simple: Update your profile information



Figure 4: Task flow to update your profile information

Medium: Create a forum



Figure 5: Task flow to create a forum

Complex: Post a FAQ and answer it on the created forum

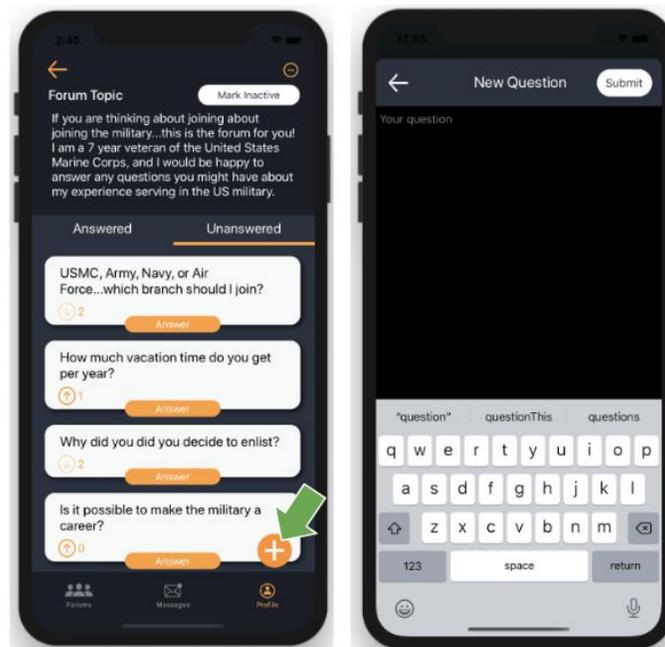


Figure 6: Task flow to post a FAQ and answer it on the created forum

Design Evolution

Initial Sketches

We explored several possible interface designs and then narrowed it down to the two designs that we found the most compelling, which were a mobile app interface (Figure 7) and a speech-based app for a smartwatch (Figure 8). We decided on a mobile app UI because of the benefits of the ease of intractability and sharing possibilities. We also found that we could simply use the audio podcast feature on a mobile device, and do not need a watch to use this feature. Thus, the decision was fairly simple to make once we had laid out the pros and cons of the two design ideas, and were overall more excited to move forward with designing a mobile app UI.

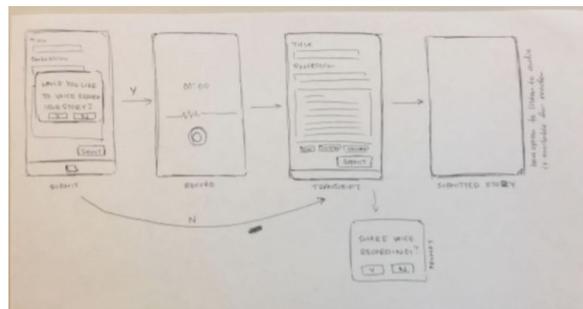


Figure 7: Mobile app interface

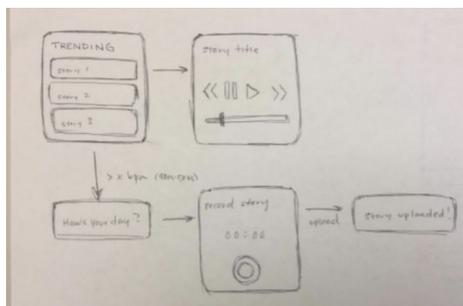


Figure 8: Speech-based app for a smartwatch

Low-Fi Prototype

We tested our low-fi paper prototype (Figure 9) with three participants by observing how they would complete our three tasks. We learned that there were some key features that we wanted to include in our next iterations, but were also encouraged that this initial UI made sense to our interviewees since they were able to complete the tasks with ease. Specifically, we learned that we needed to improve the: setup process by adding a more rigorous set of fields/majors/interests and the editing process by adding a way to tag stories, add photos to stories, and edit audio recordings. One other feature that we wanted to include in the future was a back button on most screens, since many interviewees wanted more freedom when moving between screens.

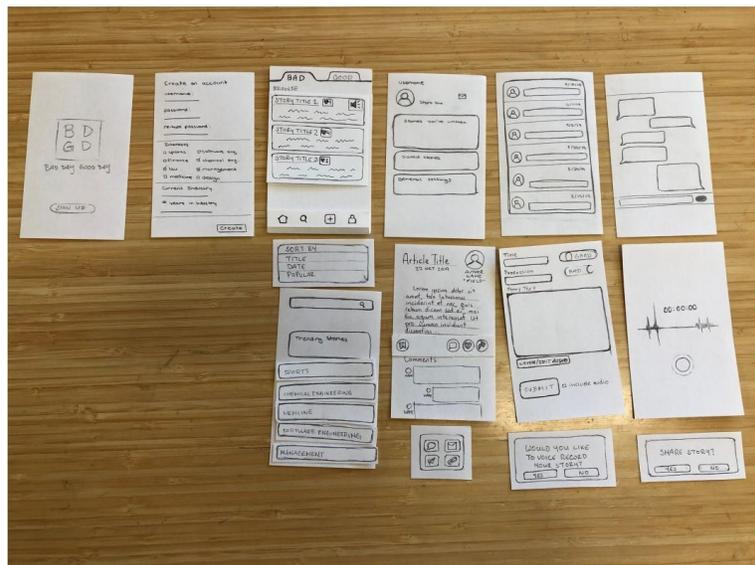


Figure 9: Low-fi paper prototype

Medium-Fi Prototype

Based on the interviews from our low-fi prototype, for the medium-fi prototype (Figure 10) we addressed most of the problems that came up from that round of feedback. Specifically, we fixed the problem with difficulty going back screens, since we found that some users expressed a want to be able to go back a page, specifically during the messaging task flow. To address this, we added a back arrow in the top left of the screen on certain pages to go back one screen. Another issue that we addressed was that we wanted a way for users to

be able to create an account and sign into their account from the start up page. In the create an account setup we also wanted to include a way for users to input careers not listed that they are interested in, which we implemented through a "other" text field on the create an account portion of the medium-fi. Thus, we implemented this feature for the medium-fi prototype. Finally, we received feedback that there was difficulty knowing which parts of the app were interactable, and thus gave every interactable part a light green box to indicate intractability.

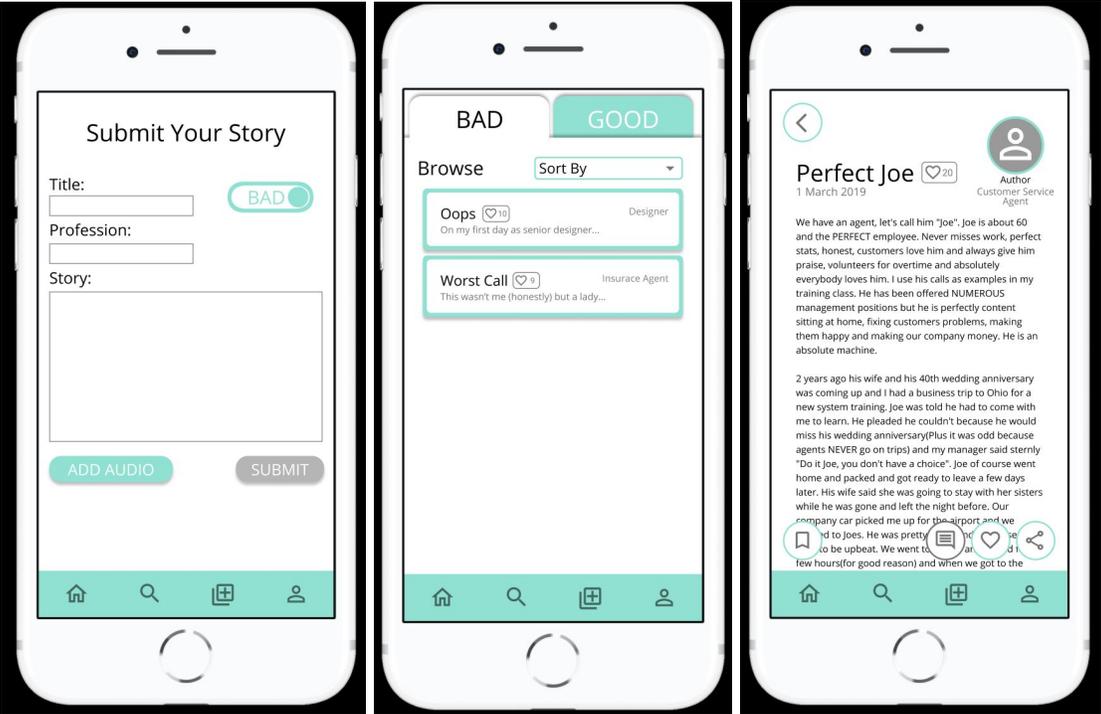


Figure 10: Medium-fi Figma prototype

High-Fi Prototype 1

Most of the changes we made for the high-fi prototype (Figure 11), came from feedback from the heuristic evaluation report. However, one major change that we did was test out different color palettes based on feedback from section, which resulted in us changing the color palette of our app to a split complementary palette of mostly blue along with yellow and orange accents.

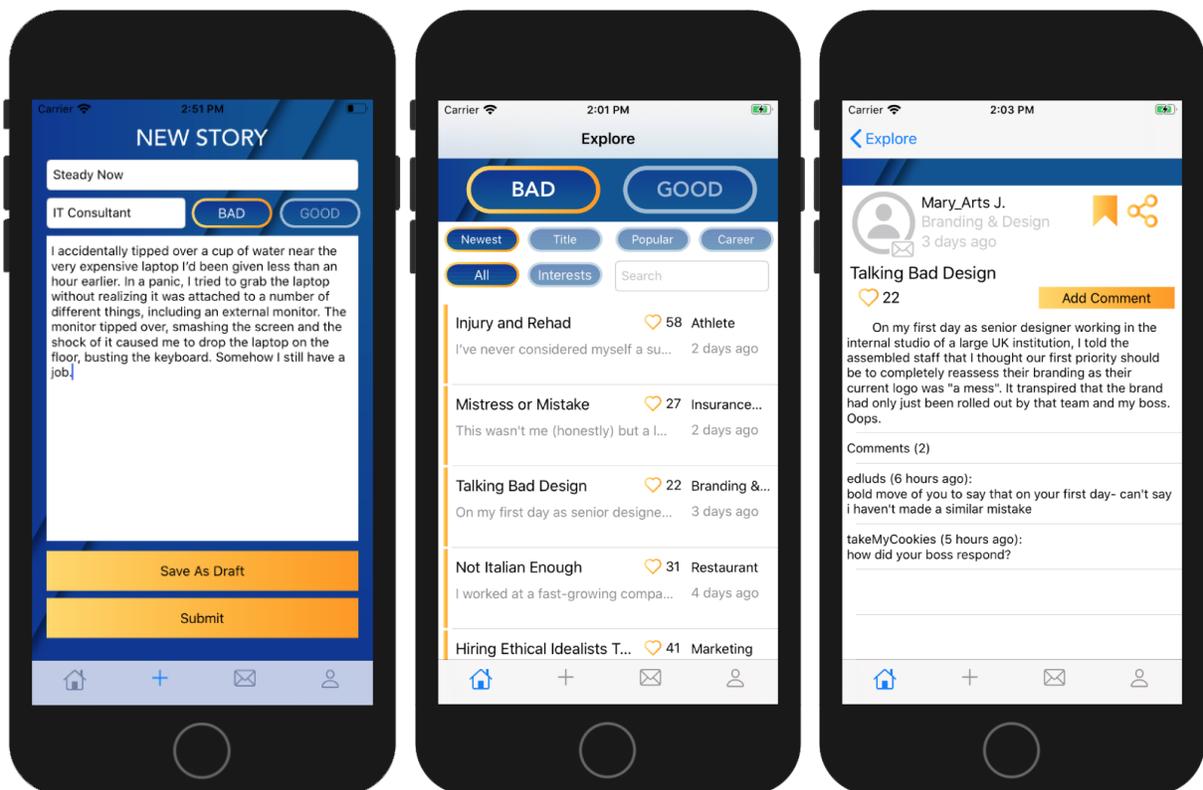


Figure 11: High-fi Swift prototype

High-Fi Prototype 2

For the start of this current quarter, we were happy with our progress on Bad Day Good Day in the previous quarter, but based on internal and external feedback we realized that our app was more of a social media platform to tell entertaining stories, rather than being a platform that provides helpful and insightful content about career guidance. Thus, we decided to pivot to Pathseeker, which we initially called “ask”, because we wanted to provide a more serious way of addressing users' needs of getting answers to their questions from professionals and learning more about different career paths.

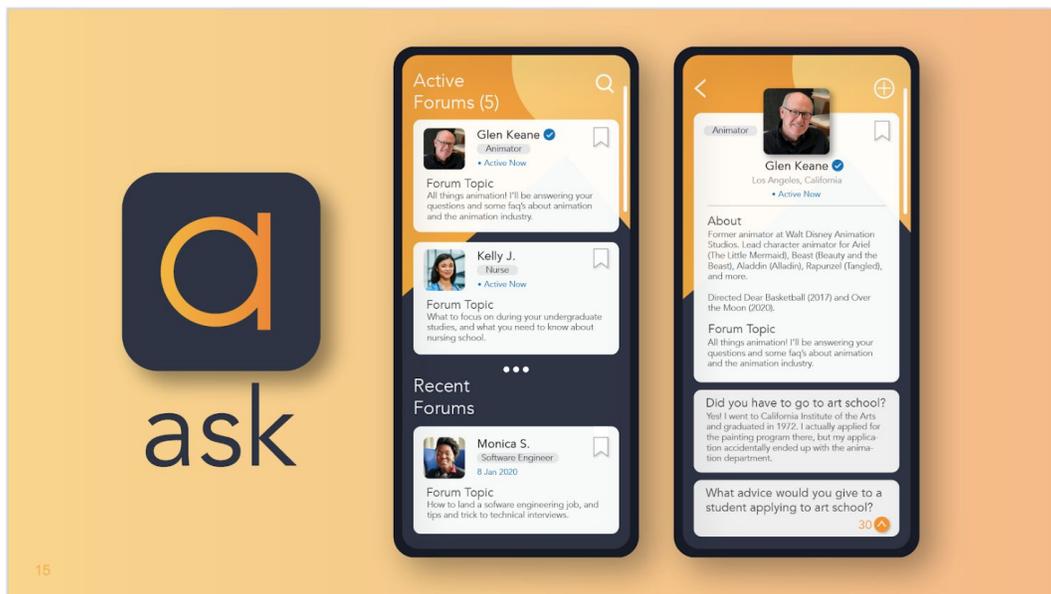


Figure 12: Design for our pivoted app

So for our first usability testing for this class, we began building out the design shown on the previous slide. And tested this prototype with young non-professionals.

From this usability testing, we learned that we need to be more consistent with icons and labels, with changing terms of “saved” forums to “bookmarked” forums, and “archived” forums, to “past” forums. We also learned that having a floating + button would be useful to users, so that they can easily pose a question as they scroll through a forum.

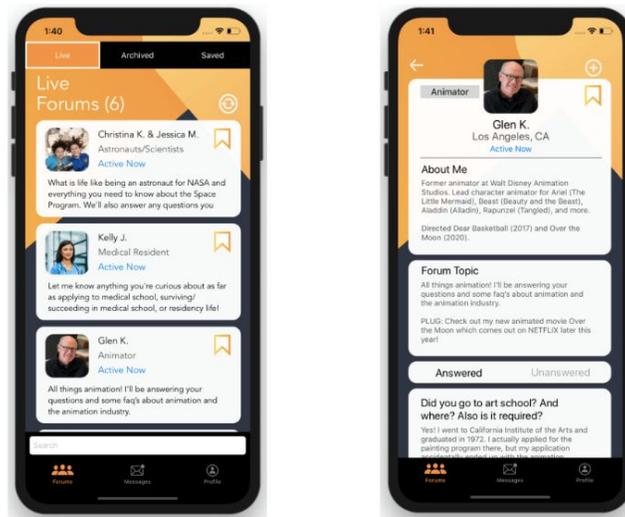


Figure 13: Prototype of the new app built out

For our second hi-fi prototype, we had a lot of changes. To start we implemented a login screen, a question screen, and a user profile screen with the ability to create a forum on this screen. We implemented major UI changes of moving the search bar to top of the screen and updated the tab levels based on user feedback. We also updated the look of the professional forum and added the floating ask a question button.

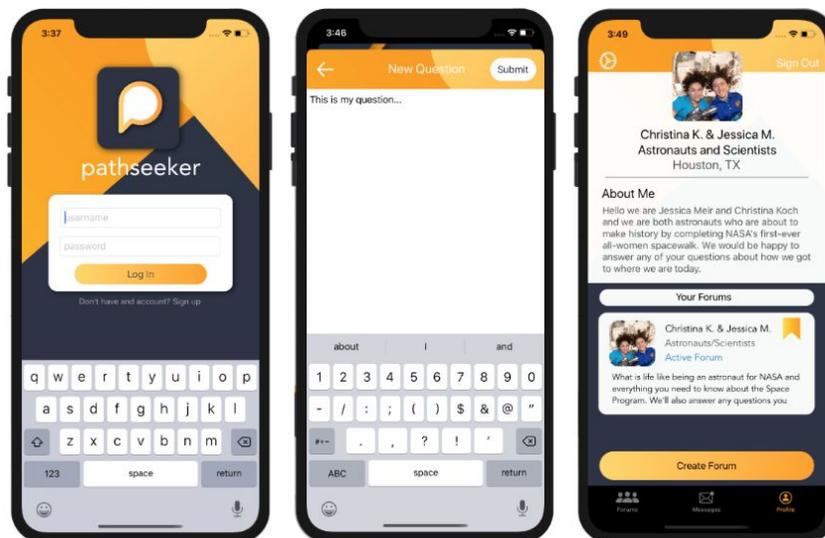


Figure 14: Hi-Fi Prototype 2

High-Fi Prototype 3

After this second hi-fi prototype, we did one final usability test, except this time focusing on the older professional users. From this we learned we should use clear terminology in order to make completing our tasks less confusing. We also learned that utilizing a consistent color scheme to avoid random pops of color would cause less distractions. And finally, we learned that for our application, younger participants completed tasks with nearly no errors, while the older participants had some questions which were later solved with some clarifications.

Finally for our Hi-Fi prototype 3, we continued to polish our app by automatically displaying the unanswered tab after posting a question to a forum to better inform the user of the status of their question. And we changed the gear icon in our Edit Profile screen to a button displaying the explicit text "Edit Profile" because the gear icon gave older users issues.

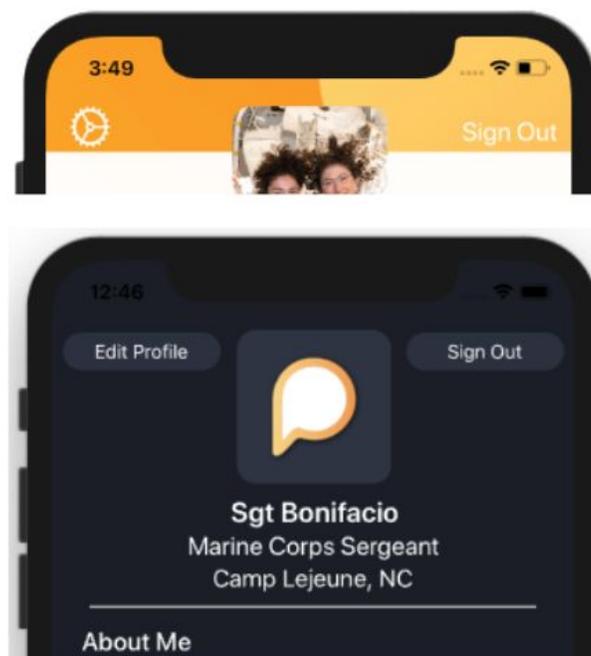


Figure 15: Hi-Fi Prototype 3

Evaluation Techniques

The two usability testing sessions were the most important evaluation techniques for our prototype's usability because these were the times that we could test our current iterations of the app with real users. Thus, the feedback we gained during these sessions, as mentioned in the design evolution, were crucial.

Through our testing we were able to gather data such as the time it took to complete each task, the number of clicks a user needed to complete a task, the number of errors a user committed in completing the task, and finally, the physical response of the tester while completing the task.

Final Interface

Login Screen



Figure 16: Login Screen

In order to explore the contents of the Pathseeker application, users must first login. Login can be completed using the welcome screen (Figure 16) by entering a username and password, if a user has already been registered, or by registering a new user account.

Throughout the login and registering process, the user is given guidance with the use of placeholder text within the input elements in order to provide the user with helpful information and, if needed, error assistance. Error assistance through the use of color and messages is used heavily in the account creation step of the login process in order to directly inform the user of the issues preventing them from advancing to the next step of the process.

Application Tab Navigation

The interface of Pathseeker was made using the Tabbed-App framework provided within XCode. We decided to use this particular interface architecture because it allowed users the ability to easily navigate from one section to another using tabs displayed on the bottom of the screen (Figure 16).

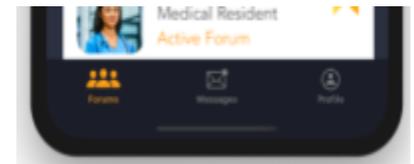


Figure 16: Tab Navigation

In regards to the Pathseeker application, this design allows users to navigate from the forums section to the profile screens with a single button press.

Forums Tab

The first screen in the forums tab can be considered the 'explore' screen of Pathseeker (Figure 17). Here the user has access to a search bar which can search forums for keywords or terms and display only those forums which relate to or contain the specified input.

Tab buttons are also utilized in this screen to allow users to filter the displayed forums by the "Live", "Past", or "Bookmarked" category. The currently selected tab is signified with the use of orange text and additional visual accents so that its status is clear to the user. Selecting one of these tabs results in the repopulation of the forum elements and the recoloring of tab elements themselves.

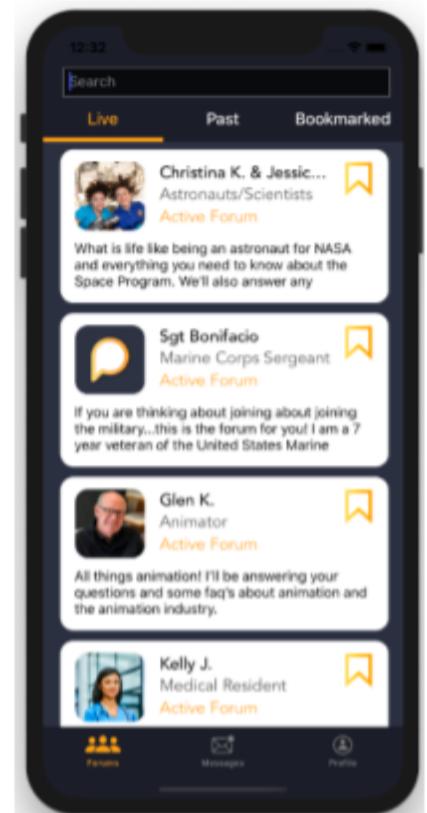


Figure 17: Forums Tab

The primary element in this screen is a table view containing the cards of various forums. This table view is populated based on the search criteria of the user and the cards display the information most relevant to the forums they represent. Information such as forum host, occupation, and activity are displayed in each card element. Additionally, a bookmark button which saves a forum to the user's Bookmarked section is present for the user's convenience. Tapping on a forum card directs the user to the forum screen

Forum Screen

After selecting a forum a user is directed to the forum screen (Figure 18) where they will find full details relating to the forum. These details include the forum author, topic, and questions.

Interactive elements on this screen include a back button that returns the user to the previous screen, a bookmark button to bookmark forum, tabs to switch between answered and unanswered questions, and finally a + button which allows the user to post a new question.

The layout of this screen was heavily influenced by the layout of currently popular mobile applications such as Twitter which uses a similar floating + button to add a new post.

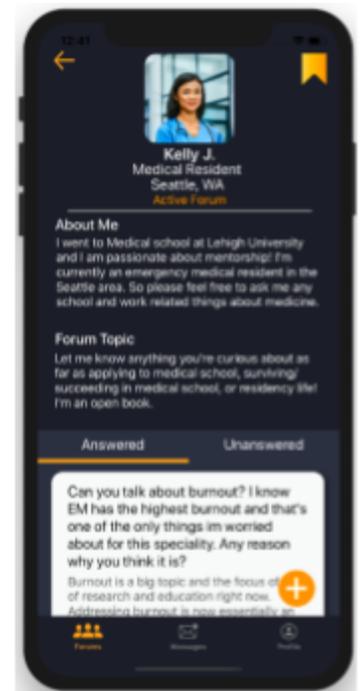


Figure 18: Forum Screen

Question Screen

The question screen (Figure 19) contains few but very important elements. A back button to return to the forum (a user may also return to the forum using the swipe down gesture). A text field to input a question. And a button to post the question.

The last interactive element used within this screen is an alert which appears after a user presses the post button. This alert is used to inform the user that the application received the user's request



Figure 19: Question Screen 16

Profile Screen

Within the profile tab, the user may view their profile screen (Figure 20) and the forums they host. From here, the user can also elect to edit their profile, create a forum, or sign out of their account using the specified button for each action.

The layout of this screen aims to provide the user with the information that would be most relevant to them during the majority of their profile interaction. Primarily, this screen provides the user an easy route to access their hosted forums in order to more easily respond to the question raised within that forum.

Similar to the Forums Tab screen, the elements within this screen are stored in a table view, and the user can interact with a forum card in the same manner as stated before.

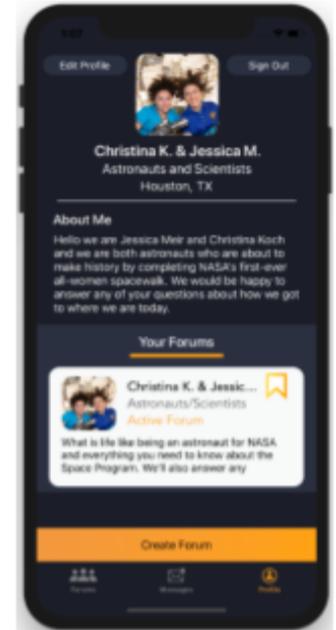


Figure 20: Profile Screen

Edit Profile & Create Forum Screens

Within the Edit Profile and Create Forum screens (Figure 21) a user can update their user details. Interaction in these screens is primary through the use of text fields and buttons.

As seen in previous screens, there is a back button at the top left of the screens. There is also an Update/Create button that updates the user's/forum's information. Similar to the question screen, an alert element appears once the Update or Create button is pressed to inform the user of the action taken.



Figure 21: Edit Profile & Create Forum Screens

Question Cards

When a user enters a forum that they host they will see additional buttons on the question elements that others will not (Figure 22). These orange buttons labelled “Answer” or “Edit Answer” allows the user to edit the answer to that question.

Other elements on the question cards including the question, answer, vote count, and vote button are seen by all users.

The vote button increases the vote count for the question. Pressing it again, decreases the vote count. Once a user utilizes the vote button, the button changes appearance to indicate the receipt of the action. The button returns to its default appearance if pressed again.

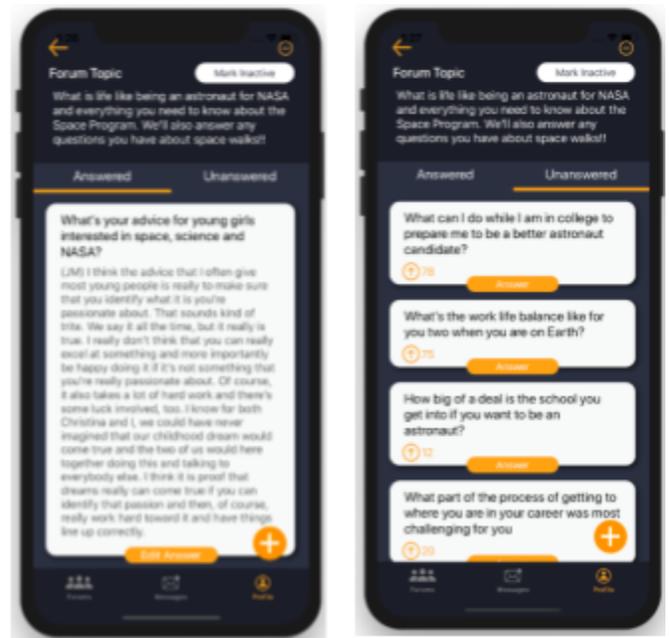


Figure 22: Question Cards

Unimplemented Portions

What was left unimplemented were the following features: uploading custom pictures, a publish and unpublish button, additional forum filtering methods, and direct messaging. The reason why custom pictures were not implemented was because it is an extra feature that we didn't have time for and didn't find it necessary for the usability of our app. The publish and unpublish button, along with additional filtering of forums are features we wanted to have for improved usability but did not have time for and were not a part of our core tasks. Finally, for the unimplemented direct messaging we held off on implementing this because direct messaging became tied to our business model, and we did not have the time to fully design and implement the business model for this class.

The tools we used to implement our app were Swift, Xcode, and Firebase for our database. A download with instructions for our app can be found on our website while we wait for

our iOS Developer license to be processed.

Making it Real

Meet the Team



Philip Q.



Gabe S.



Michelle W.

PhilipRonnie Quiambao is a senior at Stanford University majoring in Computer Science - Human Computer Interaction. His current studies focus on UX/UI design, product research, and iOS development.

Gabe Saldivar is a senior at Stanford University majoring in Symbolic Systems - Human Computer Interaction and cotermining in Computer Science. He currently works on UX/UI design and educational research projects.

Michelle Wan is a senior studying computer science at Stanford University. She has worked as a software engineer and is interested in graphic and human-computer interaction designs.

Business Model

Pathseeker's customer base primarily comprises of two groups: people who want to share advice about their careers (professionals) and people who want to obtain advice in pursuit of careers (non-professionals).

Nationally, there are over 150 million workers in the US. All of whom could provide valuable insight about their respective careers. Additionally, there are over 19 million college students in the US. All of whom could potentially benefit from gaining insights from professionals. Furthermore, additional 'non-professional' individuals include those looking into switching careers, high school upperclassmen, and those who are unemployed.

We would like Pathseeker to eventually be self-sustainable through contributions of both professionals and non-professionals. To gather our initial users, however, we would pay professionals to use this platform as an extension of other existing applications such as Indeed. For continual growth in our user base, we would also contract companies for employees who may be interested in hosting a forum as volunteer work. Additionally, we could partner with highschools and universities to encourage mentor-mentee relationships with students looking for their first careers.

The base application would be free. Our revenue streams include the ability for professionals to promote job postings or projects they endorse in hopes of encouraging others who are interested to advance down that career path. The revenue streams also includes a subscription service to allow users to participate in 1-on-1 conversations via direct messaging for those who may want a personal advice session from a particular professional. Subscription services also may include the ability to endorse professionals who have helped them through badges or points.

By releasing Pathseeker we hope to provide both professional and non-professionals the ability to gain experience within their own personal career standings. Regarding professionals, their utilization of the Pathseeker application will allow them to gain valuable mentorship experience. For non-professionals, their use of the Pathseeker application will provide them with valuable career insights in an easy and comfortable setting.

Summary

In conclusion, we developed Pathseeker based on our need finding research that showed us that there is a need for a platform that helps individuals gain insights about different careers. With the help of Pathseeker and the professionally driven Q&A forums it provides, we believe that our users will gain valuable insight, and as a result become better informed about their career choices and be better prepared to pursue their desired careers.