

ABSTRACT

Over ongoing years, there has been expanding enthusiasm among researchers in the notion of research collaboration. It is generally known that collaboration in research is something beneficial and that it ought to be empowered. Various initiatives have been proposed that aim at creating a joint effort among individual researchers. Now with the development of technology and the growth of using online social networks the communication between people has become an easy task, as well as finding answers to our questions. However, the academic researchers still find it hard to find someone that shares their interests even with the growth of social networks. Furthermore, the collaborated effort of scientists in research activity has emerged as a necessity. This necessity was due to the fusion of research interdisciplinary, the complex nature of research and for the most part, attributes to the characteristics of modern science that encourages scientists to get involved with others in collaborative research.

The project aims at building a social network matching application. This application will help researchers find research partners to collaborate with or to explore other areas of collaborations. The application will also help facilitate the communication between researchers who work in similar or different domains. Finally, the application will be developed to run on an iOS platform.

PROBLEM



SOLUTION

-  Trusted community
-  Researchers will be able to promote themselves
-  Intelligence search
-  Allow researchers to explore others interest to collaborate

PROJECT OBJECTIVES

- Create a trusted community for researchers to communicate with each other, to promote themselves, and to collaborate.
- Visualize the researcher's interests for anyone to see so researchers can promote themselves.
- Find a compatible researcher to collaborate with.
- Dynamically updates the researcher's profile by adding their recent new publications along with providing a link to it.
- Researchers will be notified of a new shift of interest based on his/her recent publications.
- Search for a researcher by interests, name, institution, or a combination of different fields.
- Combining several interests in the search query, which results in finding the most compatible researchers by using a custom designed matching formula based on the customer's needs.
- Match synonym terminologies to create a network of related terminologies to ease the search and cover every aspect.

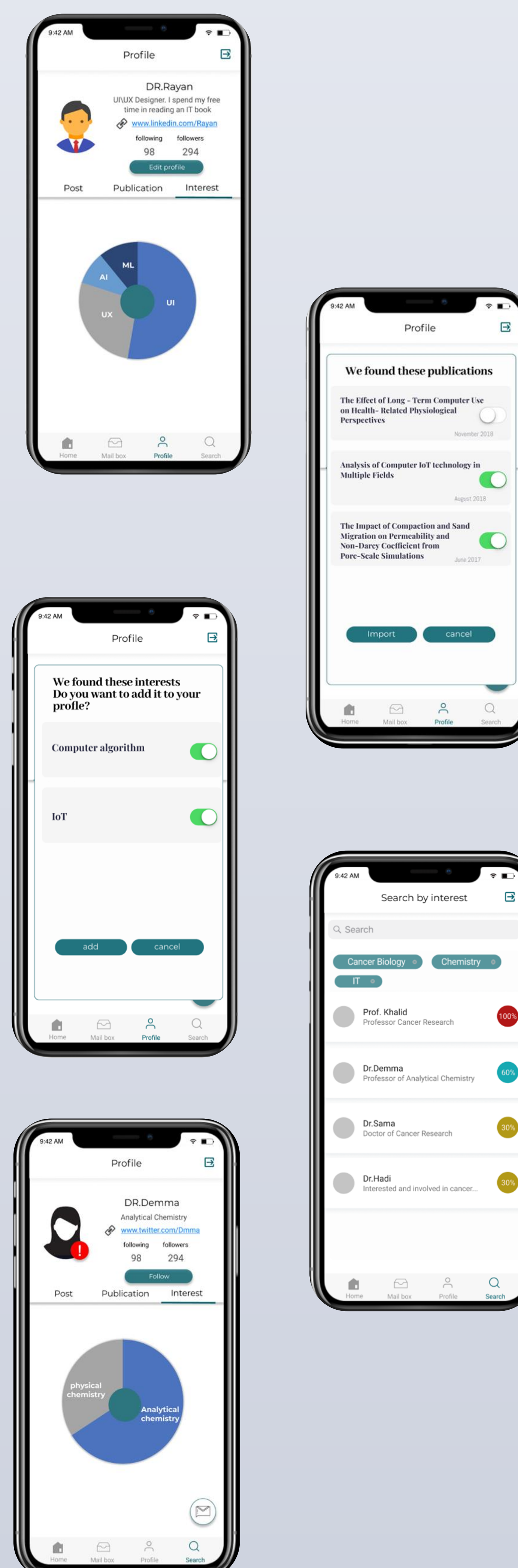
PROJECT METHODOLOGY



IMPLEMENTATION

Questers is an iOS application that will be developed using swift language. One of the ways to let the researcher promote himself is adding his interest to his profile. However, in the case of the entered interest, it is not in the system, the system will ask the researcher to request it from the admin to add it. Another way is retrieving and automatically adding his indexed publication from Springer and DBLP to his profile. In the meantime, while the system is retrieving the publication it will also extract the keywords associated to each publication and compare it to the ones in his profile if it is not in the profile the system will ask the researcher if he wants to add it. This technique will help us identify a shift in the researcher interests and help him update his profile. Finally, one of the important functionality of Quester is the search technique that finds a suitable match for the researcher to collaborates with. In implementing the search algorithm we will be using an indexing technique to transform the tabular database into a graph like one. After that, a graph traversing technique will be applied to find the optimal solution.

RESULT



FUTURE WORK

- Expand globally by adding more institution.
- Visitors mode will be added to give the researchers whose not in one of the listed institution find a way to communicate and collaborate with our researchers.
- Add more APIs to import the publication from.
- Develop an Android version.

CONCLUSION

In conclusion, the motivation behind Questers application is to help researchers to communicate with each other in a trusted community and to promote themselves as well. The application will allow them to upload and import their publications and extract the keywords from the publication and add it to the researcher's profile as interests to help other researchers find what they are interested in recently. Based on that, they will decide whether to collaborate or not. We allow researchers to search by 4 categories (by interest, by institution, by name, advanced search) to help them reach their need in an easy way. Also, there will be a website for the admin for an overall controlling and he will be able to receive and send messages to researchers, add interests, edit interest and approve interests. To guarantee the clients' requirements, the design goals have been identified. These design goals have been achieved by choosing a hybrid architecture style (Client-Server +MVP).

ACKNOWLEDGMENT

“The authors extend their appreciation to the Deanship of Scientific Research at King Saud University for funding this work through the Undergraduate Research Support Program, Project no. (URSP - 4 - 19 - 88).”