

CS 410 Lab 1

Project Characteristics

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Table of Contents

<i>1 Introduction.....</i>	<i>2</i>
<i>2 UConnect Description</i>	<i>5</i>
2.1 Key Product Features and Capabilities	6
2.2 Major Components (Hardware/Software)	10
<i>3 Identification of Case Study.....</i>	<i>10</i>
<i>4 UConnect Prototype Description.....</i>	<i>10</i>
4.1 Prototype Architecture (Hardware/Software).....	10
4.2 Prototype Features and Capabilities	10
4.3 Prototype Development Challenges	11
<i>5 Glossary.....</i>	<i>11</i>
<i>6 References</i>	<i>12</i>

Table of Figures

Figure 1: Graph of enrollment increase from 1960 - 2022 (Korhonen, 2023).	2
Figure 2: Participation in internships by household income and by gender. (Kapoor & Gardner-McCune, 2020).	3
Figure 3: Percentage of jobs, by industry, that required at least two years of experience or more, based on data from LinkedIn and Indeed (Search & Salton, 2022).	3
Figure 4: Current process flow for project launchers.	4
Figure 5: Current process flow for project seekers.	5
Figure 6: Solution flow of a project launcher.	5
Figure 7: Solution flow of a project seeker.	6
Figure 8: A mockup of a project launcher creating a post on UConnect.	7
Figure 9: A mockup of a user profile on UConnect.	7
Figure 10: A mockup of a post, from the perspective of a project seeker, on UConnect.....	8
Figure 11: A mockup of two users, a project launcher and project seeker, messaging. The title of the related project is at the top of the message. The recipient is dark blue; the sender is light blue.	8
Figure 12: A mockup of the UConnect homepage after a user has logged on.	9
Figure 13: A mockup of UConnect's search page, after making a search for the tags "3-D Design", "Artist", and "Graphic Design"	9
Figure 14: Major Functional Component Diagram for UConnect.....	10

1 Introduction

- Bachelor's degrees are not enough to qualify for early career positions.
- College students are surrounded by other students who want an opportunity to use their skills.
 - o E.g. film student wants to make a short film: English majors, theatre students, etc. who may enjoy working on the project as well.
 - o Problem: students do not always seek each other out.
- Solution: service that allows college students who want to create a project to meet students who want opportunities to use their skills.
- Increased enrollment: Veera Korhonen tracked both high school and college graduates by population percentage from 1960 to 2022; number of college graduates has continued to increase. This increase is shown in Figure 1.

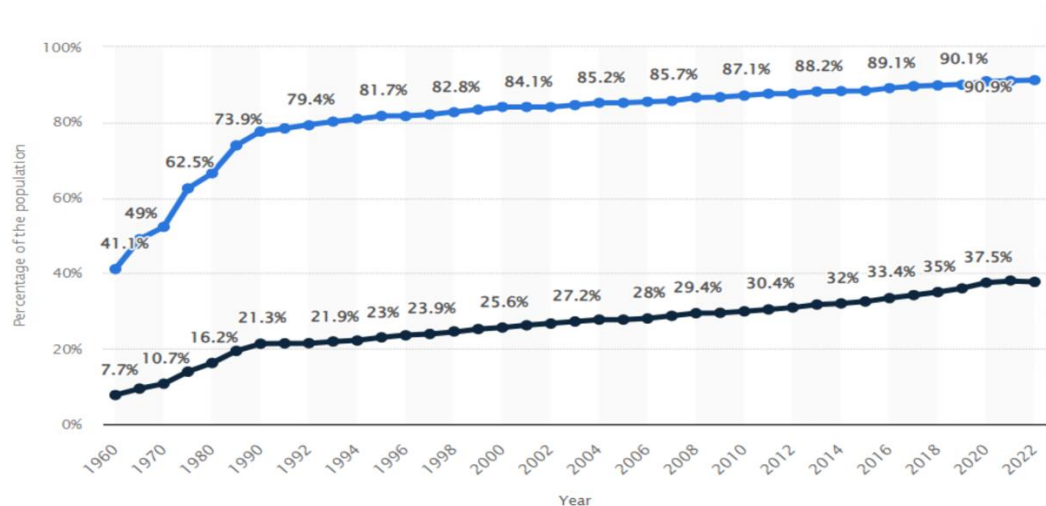


Figure 1: Graph of enrollment increase from 1960 - 2022 (Korhonen, 2023).

- Few internships: A study performed by Sarah Zehr in 2016 showed that 75% of students had some form of internship experience by graduation; another conducted by Kapoor and Gardner-McCune in 2020 highlighted that these numbers are lower. For computer science graduates, only about 40% had landed internships. The distribution of internship participation by household income and gender is highlighted in Figure 2.

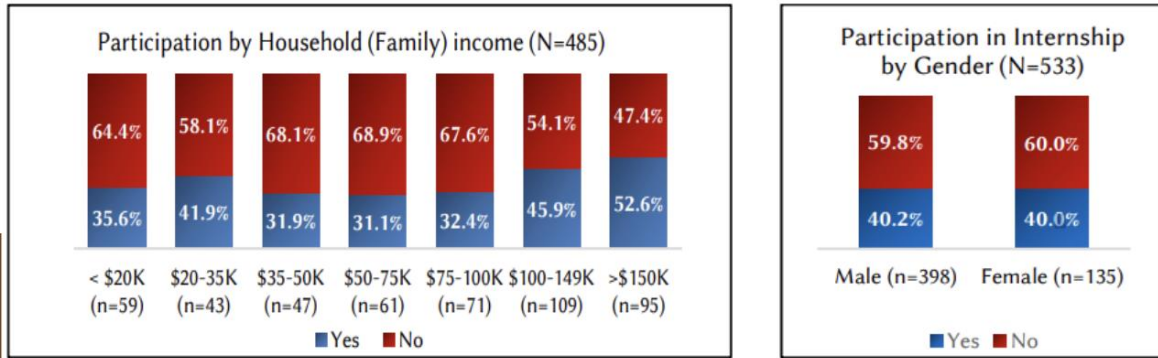


Figure 2: Participation in internships by household income and by gender: (Kapoor & Gardner-McCune, 2020).

- Experience inflation: Verve Search, with Hannah Salton, explored the phenomenon of “experience inflation.”
 - o Experience inflation: as time goes on, employers require more experience for entry level jobs.
 - o In the U.S., entry level jobs in several fields are requesting more years of relevant work experience for job listings marketed as “junior level” or “entry level” (see Figure 3).

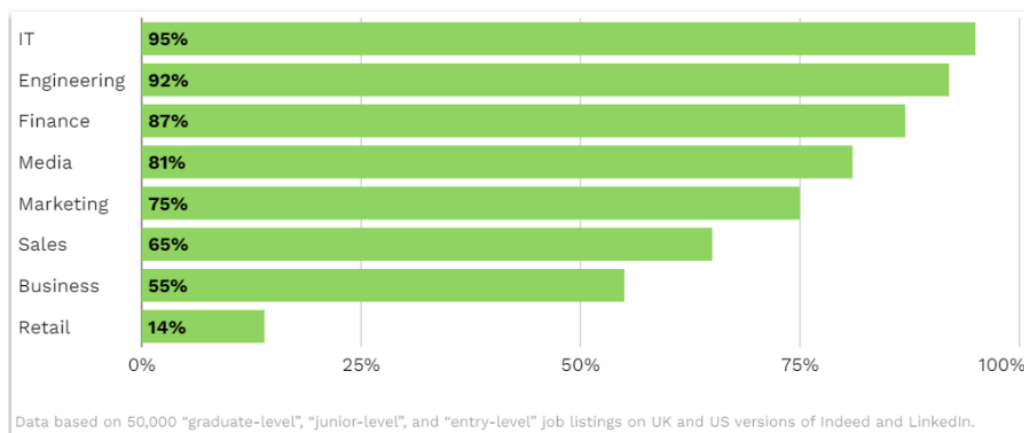


Figure 3: Percentage of jobs, by industry, that required at least two years of experience or more, based on data from LinkedIn and Indeed (Search & Salton, 2022).

- Students who are looking for people to join their project must currently search different platforms to try and find project members. (See Figure 4).
 - o They also must seek them out individually and wait for a response.

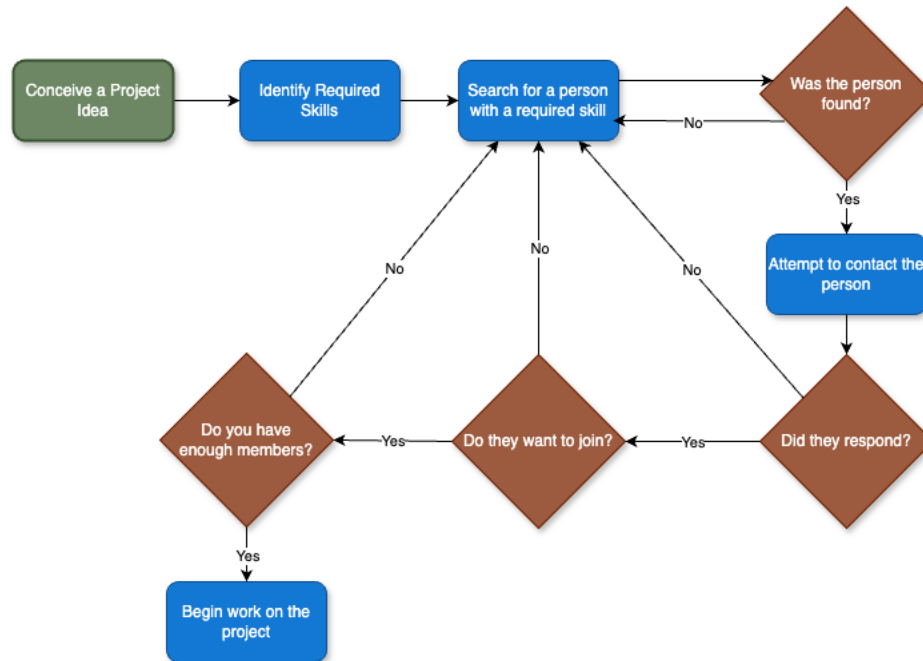


Figure 4: Current process flow for project launchers.

- Students who are looking for experience can either explore traditional employment opportunities or search for other student organized projects (see Figure 5).
 - If they search for traditional employment opportunities, they must find suitable internships/jobs in their area, then they must meet the requirements, then they must apply and be accepted.
 - If they search for student-created projects, they must use different platforms to try to find these projects (face-to-face and/or online).
 - Can face rejection.
 - Can be difficult to find projects.

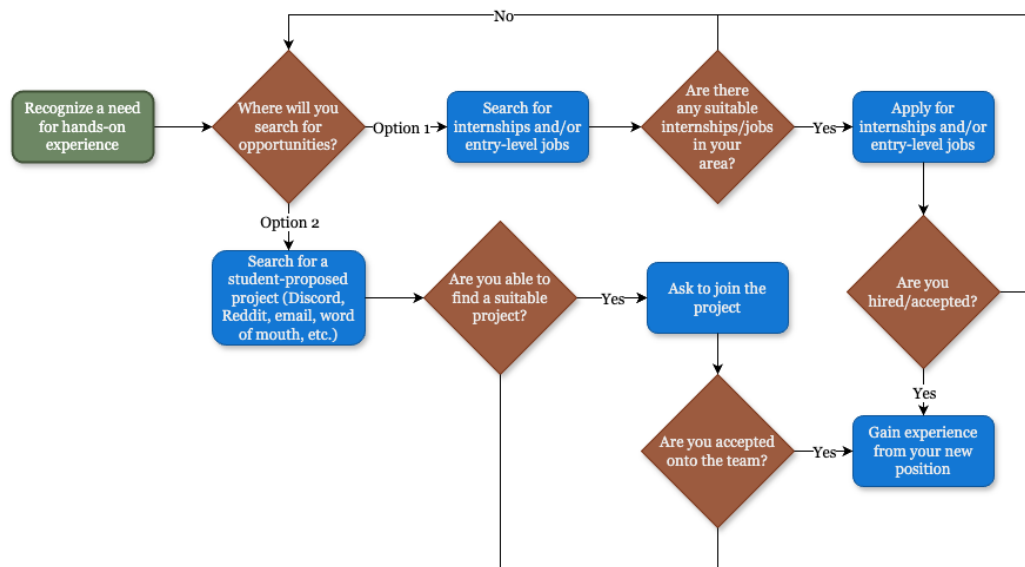


Figure 5: Current process flow for project seekers.

2 UConnect Description

- UConnect is a web application that will allow college students to reach out to each other and work on projects for experience that they can put on their resumes.
- A “Project Launcher” can make a post describing the project they wish to launch, along with needed skills or fields of study for the project.
 - o Process of finding members for a project becomes much simpler: only need to advertise on one platform (see Figure 6).

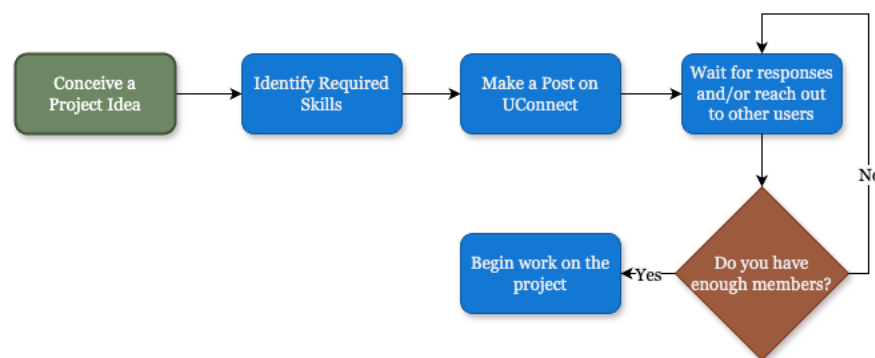


Figure 6: Solution flow of a project launcher.

- A “Project Seeker” can browse posts to find projects they wish to join. They can reach out to Launchers.
 - o Students can still pursue traditional employment opportunities.

- Finding student-created projects to join becomes much easier: only need to search on one platform (Shown in Figure 7)

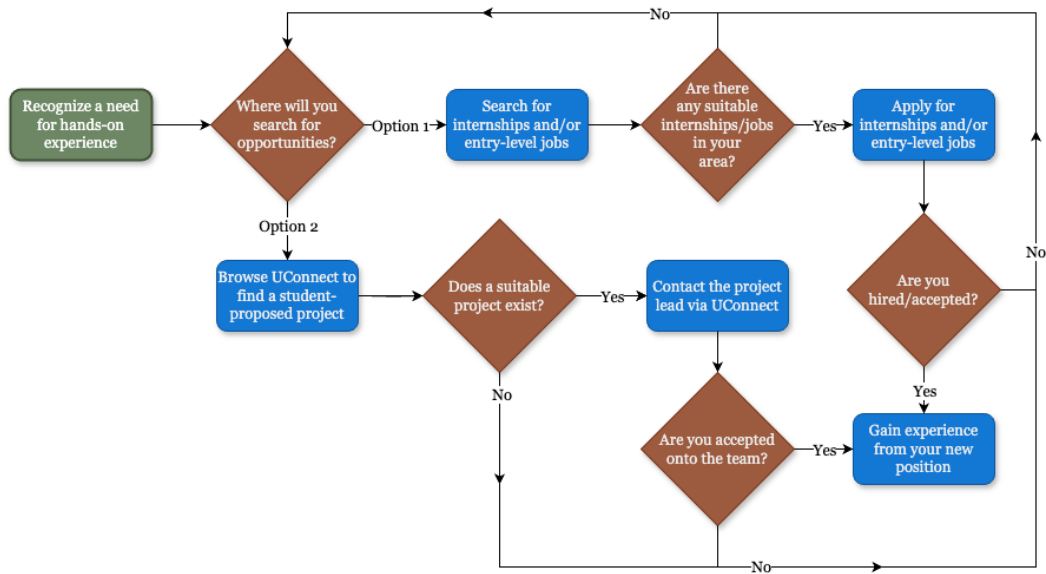


Figure 7: Solution flow of a project seeker.

- Any user, at any time, can be launchers or seekers. (see Figure 12)

2.1 Key Product Features and Capabilities

- Users can act as project launchers.
 - Create posts to advertise projects. (see Figure 8)
 - Browse user profiles (see Figure 9), reach out to potential team members to recruit.

UConnect Search Launch My Projects Inbox Account

***Project Name :** Sample Project

Number seeking : ☒ Exact : 2 ☐ From [] To []

Estimated Length of Project: ☐ Exact : ☒ From 2 months To 3 months

Project Tags : Long term Undergraduate Graduate

***Seeking Tags :** psychology? Artist Academic

*Required to post

12pt v | B I U A | Insert Image | Insert Link

I want to run an experiment on how interactive experiences increase the retention of history lessons for elementary students.

I went to ODU's Children's Learning & Research Center has allowed me to perform my experiment with their students in August as long as everything is finalized by July 30th.

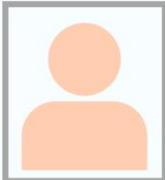
I want a psychology student, ideally versed in child psy

Last save : 3:36:22 ... 3min ago

Save Draft Save and Post

Figure 8: A mockup of a project launcher creating a post on UConnect.

UConnect Search Launch My Projects Inbox Account



Tom Verran

Biography

Hey, I'm Tom. I make pixel art for characters, backgrounds, items- anything you want, I'll do. My passion is in video games, so I'm game for any of that kind of work.

Realistically that's not where my career's going, so fortunately I do more than just game art. I produce logos, do basic animation, and make event flyers.

I'm proficient with a few different styles- minimalist and pop art, mainly. The further you go from pixel art, the further out of my realm you get. Still willing to give it a shot, though- looking forward to exchanging messages.

Skills: Artist Pixel Pop Art Logos Flyers Animation

Reviews:

Gene W. Direct, professional, fast-return. It was a two week project and I needed pixel art for 4 32x32 characters in all stages of walking. Excellent work. Pixel

Sana A. He did very good work. He made a flyer for a fitness event and made corrections through three iterations. Flyers

Filter by [v]

Figure 9: A mockup of a user profile on UConnect.

- Users can act as project seekers.
 - o Create personal profiles to describe their skillset.
 - o Browse posts from project launchers (see Figure 10)
 - o Message users about their projects (see Figure 11)

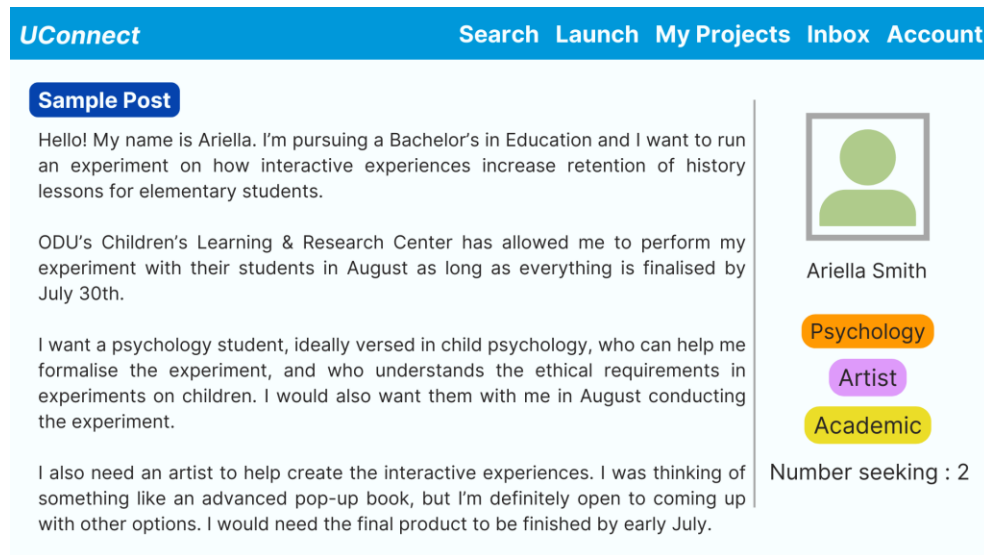


Figure 10: A mockup of a post, from the perspective of a project seeker, on UConnect.

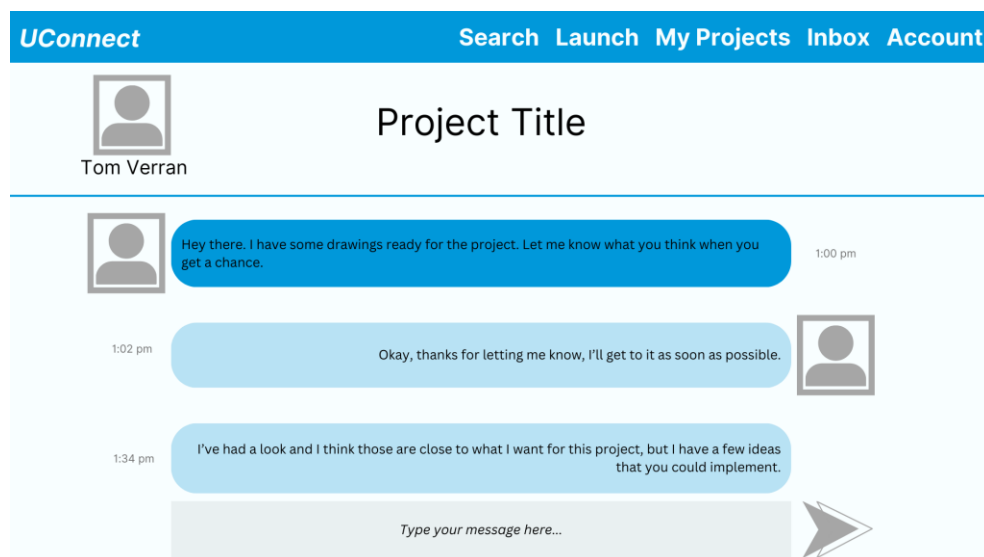


Figure 11: A mockup of two users, a project launcher and project seeker, messaging. The title of the related project is at the top of the message. The recipient is dark blue; the sender is light blue.

- Tagging system
 - o E.g. “graphic design”, “psychology”, “academic”, “short-term” etc; describe general areas of expertise/skill or project characteristics.
 - o Can be applied to user profiles (highlight areas of skill/expertise)
 - o Can be applied to project posts (highlight areas of needed skill/expertise, or define relevant project characteristics)
- Searching

- Users will use search queries to find relevant projects and/or users (i.e. potential team members) (see Figure 13)
- Users can use various filters, or search by tags and/or keywords.
- Not a matchmaking service (cannot match students to other students)
- Reviews
 - Users can leave reviews on profiles of other users that they have worked with.

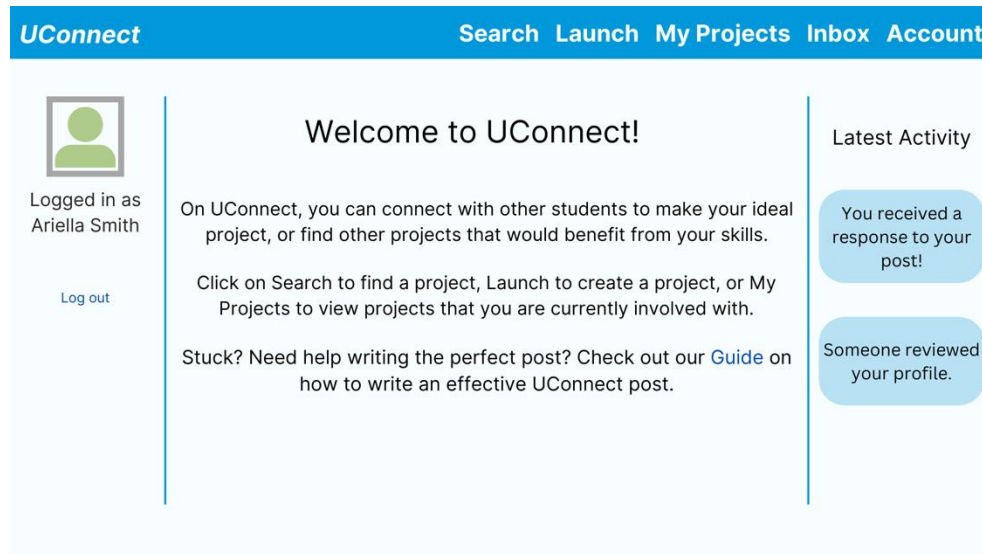


Figure 12: A mockup of the UConnect homepage after a user has logged on.

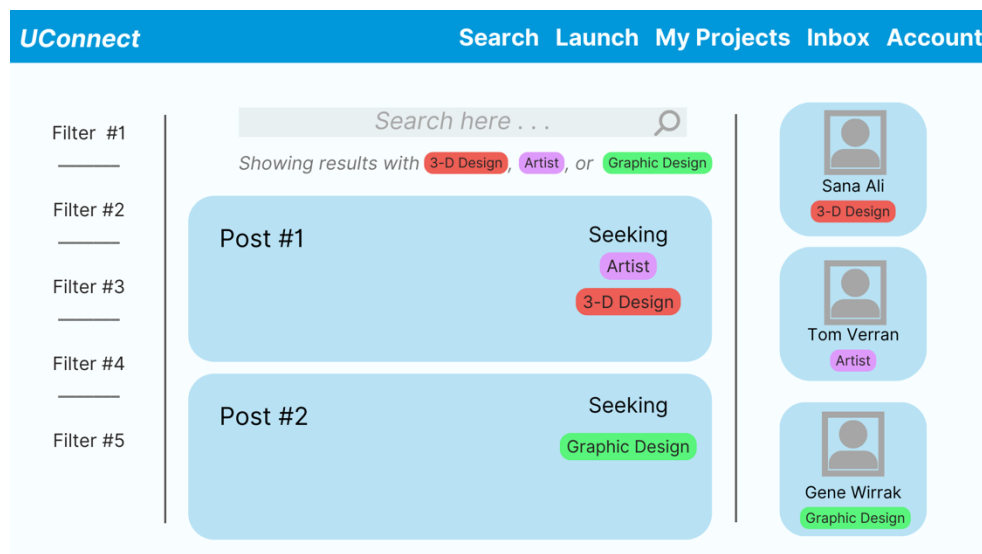


Figure 13: A mockup of UConnect's search page, after making a search for the tags "3-D Design", "Artist", and "Graphic Design"

2.2 Major Components (Hardware/Software)

- Django for web development
- PostgreSQL for databases
- OAuth for user authentication

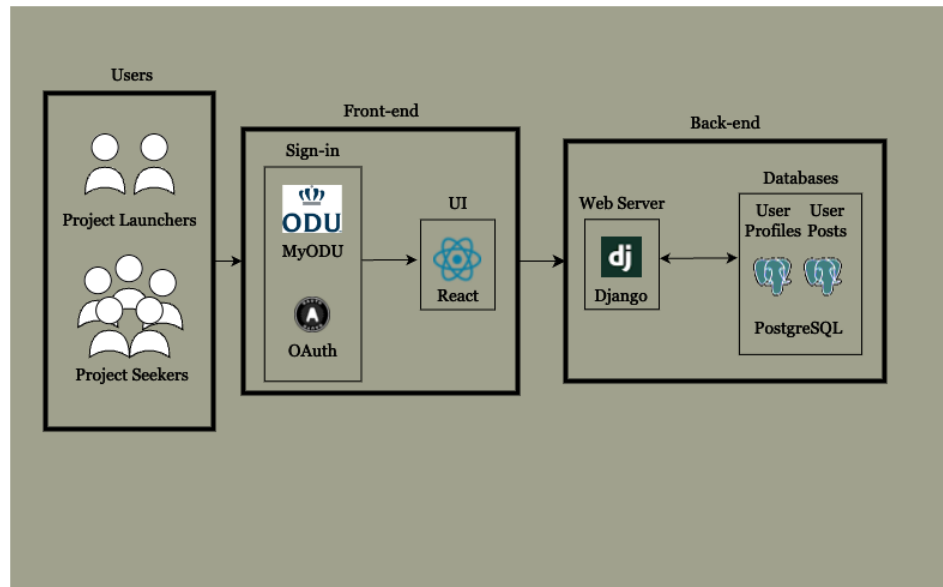


Figure 14: Major Functional Component Diagram for UConnect

3 Identification of Case Study

UConnect's users are students actively enrolled in a college, university, or other institution of higher education. UConnect's customers are university administrators.

4 UConnect Prototype Description

Describe the prototype.

4.1 Prototype Architecture (Hardware/Software)

Describe the prototype MFCD.

4.2 Prototype Features and Capabilities

Describe the feature and capabilities of the prototype.

4.3 Prototype Development Challenges

Describe challenges encountered during prototype development.

5 Glossary

Project Launcher: User who has a project they are interested in recruiting students to work on

Project Seeker: User who is interested in using their skills to contribute to a project

6 References

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