

LOUISE JAEMIN LEE

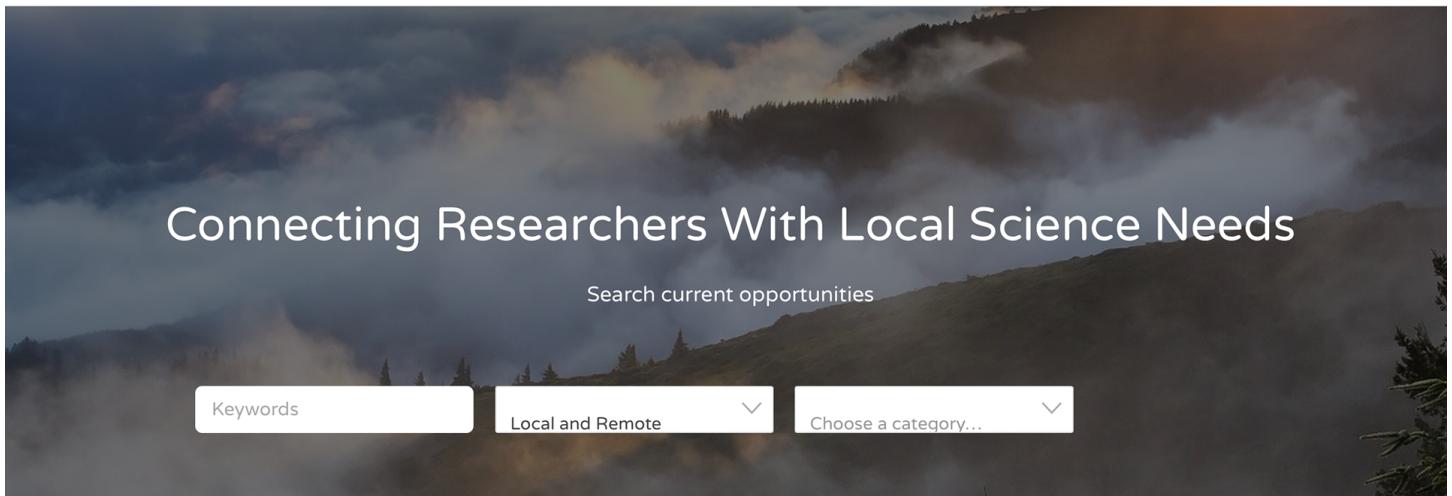


Connecting Students to Global Science Needs

Fall 2020 ----- Role: UX Designer

RESEARCHNEEDS.ORG

About Science Needs Login Register



Client: Sense and Sustainability.

This organization aims to resolve conflicts of research opportunities from both the NGO (non government organization)'s and student researcher's end. The NGO's most conventional method to hire external researchers are email and personal connections while a student researcher's options are highly dependent on a professor's referral or personal searchers. Moreover, in a student researcher's perspective, it is even harder to expect a position that allows them to first handedly engage in field research. In both contexts, the research pool is restricted and limited.

hello

What Are ResearchNeeds.org's Ultimate Goal?

NGOs post available research needs on the website by listing their requirements and the deliverables/outcomes student researchers are able to achieve. Student researchers are able to search and apply for research opportunities all over the world.

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 Topics, Skills, Organization

 All Categories ▼

 Country, State/Subregion, City

 Search Projects

Duration

- 1-3 Months
- 3-6 Months
- 6-12 Months
- 1+ Year

Project Type

- Undergrad
- Masters
- PHD
- Preliminary Idea

Position

- Full Time
- Part Time

[Advanced Search Options ▼](#)

24 Results


Position Title
Organization Name
Organizational Department
Location: Country, Subregion, City

Duration: XX/XX/XX-XX/XX/XX

Part/Full Time
Topics

- Topics Tag
- Topics Tag
- Topics Tag
- Topics Tag
- ...

Skills

- Skills Tag
- Skills Tag
- Skills Tag
- Skills Tag
- ...

As A UX Designer

My team was in charge of refining the design of the already existing website ResearchNeeds.org and offer recommendations for improvement. The main factors we needed to consider were 1) to be more usable, 2) have better onboarding, and 3) a cleaner and fresh cut design.

Methodology

ResearchNeeds.org offers different features to users who have registered as Student Researchers, and users who have registered as organization members. Therefore, we treated the student researcher and organization sides of the website as two different systems, performing separate sets of user interviews and user tests for both.

For both the researcher and the organization side of the website, we performed 5 user interviews and 4 user tests. Participants were either student researchers, or members of organizations whose responsibilities included finding external researchers to work on their organizations' research projects. Student researchers represented a variety of different backgrounds and were at a variety of academic levels, from undergraduate to Ph.D.

We were referred to our participants by our client, who had previously contacted them.

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User Interviews

Different sets of interview questions were written for the interviews with the researcher participants and for the interviews with the organization participants.

Researcher Participants: interview questions were written to elicit information about the current ways that researchers look for research, the challenges that they face in doing so, and what could help them to better find research opportunities.

Organization Participants: questions were written to elicit information about the ways that they help their organizations to fulfill their research needs, the challenges that they face in doing so, and what could help them to better fulfill their organization's research needs.

(Pictures Right Below Are Interview Scripts for Both Researcher and NGO's)

For Student Researcher

1. Describe your ideal research project?
 - a. What do you want most out of your research projects?
2. Describe how you look for research projects
 - a. What if any digital or external resources do you use to supplement this strategy
 - i. How do these resources fit into this strategy
3. Could you describe your last experience in looking for a research opportunity?
4. Could you describe your most enjoyable experience in looking for a research opportunity?
5. Could you describe your least enjoyable experience in looking for a research opportunity?
 - a. What challenges if any do you face in finding practical research opportunities?
6. Could you tell us about the last time you worked on a project that included external stakeholders?
7. How, if at all, has the Pandemic influenced your research activities?

Ending:

1. Do you have anything else you'd like to share?
2. Do you have any questions for us?
3. Thank you for your participation!

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3. What challenges if any do you have in communicating your research needs?
 - a. What if any external resources do you use to communicate your research needs?
 - b. How willing are you to use a new digital resource to communicate your research needs?
4. What challenges if any do you have in communicating with people outside your organization?
5. Describe the last time you used an external digital resource for your organization?
 - a. What if any challenges did you face in using this resource?
 - b. Can you tell us about the last time you set up a profile on a website?
6. Describe your favorite experience in using an external digital resource?
7. Describe your worst experience in using an external digital resource?
8. What challenges if any do you have in accessing websites that your organization currently utilizes?
9. Can you share the last time where you held an external project with student researchers?
10. How has the pandemic impacted your ability to find research expertise?

Ending

1. Do you have anything else you'd like to share?
2. Do you have any questions for us?
3. Thank you for your participation!

Primary and Secondary Personas of Both Student Researcher & NGOs

To better understand our user pool, o primary and secondary personas were created on both ends based on needfinding interviews.



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27

Graduate Student

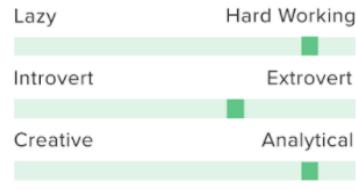
In a Relationship

Caucasian

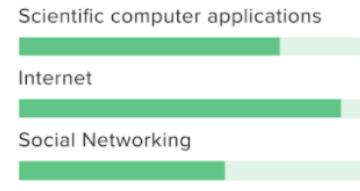
M.S Environmental Science

AGE	27
OCCUPATION	Graduate Student
STATUS	In a Relationship
ETHNICITY	Caucasian
EDUCATION	M.S Environmental Science

PERSONALITY



TECHNOLOGY



MOTIVATIONS

- To pursue a career in research
- To solve problems "on the ground"
- To perform research that aligns with his interests
- He is passionate about research

GOALS

- To make connections with research partners, professors etc.
- To meet Ph.D. requirements
- To find research opportunities that align with his interests

SKILLSET

Data analysis, Environmental science, Academic research, Professional writing skills

QUOTE

"Oh boy. I wonder if THIS guy will respond to my email."

FRUSTRATIONS

- Sends out a lot of emails to professors and academic partners who he wants to work with doesn't hear back from many of them. On online resources, research opportunities are sometimes misleadingly scoped
- Descriptions for research opportunities on job boards are sometimes not clear. Not clear what level of education required

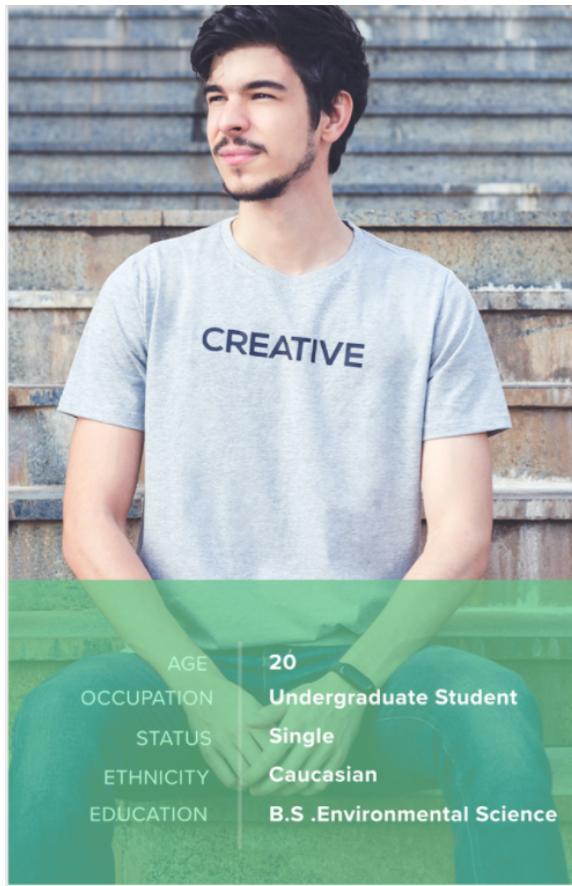
BIO

John Frederick is a Ph.D. student at Stanford University and is currently looking for research opportunities. Though he has cold-emailed 56 professors, he has only gotten two responses to his emails in the past month. The people who responded were not clear on whether their projects were for undergrads or graduate students. He has also been pursuing networking opportunities, but networking is time consuming, and he is very busy.

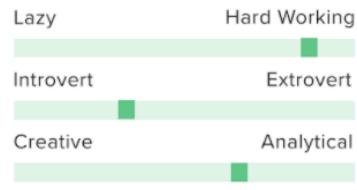
Primary Student Researcher



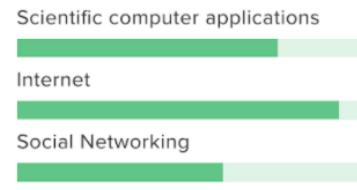
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PERSONALITY



TECHNOLOGY



MOTIVATIONS

- To perform research that they are passionate about
- To gain research skills
- To get a job in environmental research
- They love research

GOALS

- To graduate
- To perform research projects and get experience
- To get his name published on an environmental science paper

SKILLSET

Theoretical reasoning, Statistical analysis, Basic knowledge of biology

QUOTE

"Editing images on photoshop for two hours straight is sooooo what I wanted out of this experience."

FRUSTRATIONS

- Research opportunities for undergrads are often gruntwork
- Not sure exactly what kind of research opportunities he is looking for- or how to find them through googling.
- Lack of Paid research opportunities

BIO

Daniel Henderson, a junior at UNC Chapel Hill, is trying to attain a Bachelor of Science degree, and an eventual career, in Environmental Science. To refine his research skills to a professional level, he knows that he must participate in a research project outside of the classroom.. He is currently trying to network with professors who are conducting projects that he is interested in.

Secondary Student Researcher

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AGE **36**

OCCUPATION **Head of NGO HR**

STATUS **Married**

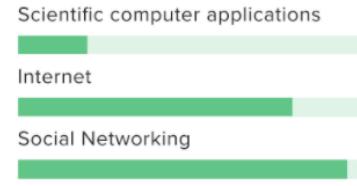
ETHNICITY **Caucasian**

EDUCATION **B.A. in Human Resources**

PERSONALITY



TECHNOLOGY



MOTIVATIONS

- To have a positive physical and social impact on the environment and society
- To help communicate knowledge

GOALS

- To complete their projects
- To bring in good talent for their organization
- Provide a helpful experience for student researchers

SKILLSET

Social media, Communication, Candidate screening, Analytics

QUOTE

"I'm swamped with all these applications"

FRUSTRATIONS

- Plenty of applicants fail to meet the requirements or have the expertise
- Prospective applicants don't understand the science/ relevant skill sets
- It is difficult to get no researchers to understand her org's research needs
- Wants to get funding, however must do things that aren't ideal for conservation because that matters to the donor/public.

BIO

Daniel Henderson, a junior at UNC Chapel Hill, is trying to attain a Bachelor of Science degree, and an eventual career, in Environmental Science. To refine his research skills to a professional level, he knows that he must participate in a research project outside of the classroom.. He is currently trying to network with professors who are conducting projects that he is interested in.

Primary NGO Organization



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PERSONALITY

Lazy Hard Working

Introvert Extrovert

Creative Analytical

TECHNOLOGY

Scientific computer applications

Internet

Social Networking

MOTIVATIONS

- To fight food insecurity in the state of Missouri
- To educate stakeholders on the research relevant to their projects

FRUSTRATIONS

- Wants to get funding, however must do things that aren't ideal for conservation because that matters to the donor/public.
- Doesn't have the means to reach primary research, including funding and connections

GOALS

- To complete project on tracking food distribution in his local counties
- To find a student researcher to assist on his project

SKILLSET

Familiarity with research practices, Communication, Writing

QUOTE

"How do I get people to understand my work?"

BIO

Daniel Henderson, a junior at UNC Chapel Hill, is trying to attain a Bachelor of Science degree, and an eventual career, in Environmental Science. To refine his research skills to a professional level, he knows that he must participate in a research project outside of the classroom.. He is currently trying to network with professors who are conducting projects that he is interested in.

Secondary NGO Organization

User Tests

Users performed a set of tasks on UserNeeds.org while screen-sharing, and were asked to talk about everything that they were thinking while performing the tasks

I have also asked participants questions to prompt them to explain things that they said or did in more detail. Listening to participants as they thought out loud allowed us to learn about the challenges they faced while using ResearchNeeds.org and about their perceptions of the website. A post test interview followed the tasks, which allowed us to elicit detailed responses about participants' thoughts and perceptions of the website.

(Pictures Right Below Are User Test Scripts for Both Researcher and NGO's; These Are Only a Portion.
For details [click here](#)).

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~~work through a series of tasks I will prompt you to complete. Work as you normally would if you were using this website while looking for research opportunities, but please think out loud, narrating what you are looking at and thinking about.~~

Task #1

For this task, imagine you are looking for a research opportunity for your studies/job. You have heard about Researchneeds.com. From your peers and you are now eager to try it out. The first thing you will need to do is sign up for this website.

Afterwards, please sign out of your account to prepare for task 2.

Doesn't look like a link (then can you write these down)

Task #2

A few days later, you realized your Research Needs password has been compromised and you need to change it. Sign in to Research Needs and change your password. For added security, please change your username as well.

Task #3

Now that you have signed into your account successfully, you will need to add your resume.

Task #4

You now want to start your search for research opportunities. Find 3 research opportunities that interest you.

-(If they did not end up using the search option toolbar) Play around with search options to refine your search

--which would seem most useful to you, and why

-(Else) Please describe your process for locating interesting research opportunities.

Task #4b

Now we will show you a wireframe for an alternate design of this page. Do you prefer the wireframes version of this page or the version that is actually on the website? Why?

Task #5

Now that you have looked through the available opportunities, you now want to set up alerts for future opportunity postings so that you do not have to constantly check the website to hear of new opportunities on your own. Set up alerts for types of opportunities that you are interested in.

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were using this website while trying to recruit external researchers, but please think out loud, narrating what you are looking at and thinking about.

Task #1

For this task, imagine you are looking to post a research opportunity for your organization. You have heard about ResearchNeeds.com. from your peers and you are now eager to try it out. The first thing you will need to do is sign up for this website.

Task #2

A few days later, you realized your Research Needs password has been compromised and you need to change it. Sign in to Research Needs and change your password. For added security, please change your username as well.

Task #3

You now want to start to create your research opportunity. Please describe how you would accomplish this, and your experience of doing so.

Task #4

Now that you have created your research opportunity, you now want to set up alerts for future applicant postings so that you do not have to constantly check the website to hear of new applicants on your own.

Task #5

A few days later, your organization decides to change the location for the research opportunity. Sign in to Research Needs and edit your posting.

Task #6

Imagine it has now been a few days since you posted the opportunity. You are curious to see how the post is doing, so please navigate to your dashboard to see who has interacted with your post.

Task #7

- 1) Please wait a few minutes while your posting gets applications.
- 2) Accept one of the applicants and reject the others, rate all all the applicants.
- 3) Send the rejected applicants an email saying they have been rejected.
- 9) Send a private message to the accepted applicant saying they're hired.

Recommended Wireframes

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Account

 Account

 **USERNAME ***

loislee1

 **FIRST NAME**

Lois

LAST NAME

Lee

E-MAIL ADDRESS

wowfantasticbaby98@gmail.com

Update Account

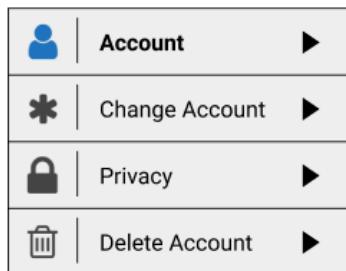
1: Before

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Account

ACCOUNT



USERNAME*

FIRST NAME*

LAST NAME *

EMAIL ADDRESS*

ROLE*

▼
Select an option...**Register**

1: After

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LAST NAME

E-MAIL ADDRESS * 

Requires .edu or @organization email account

PASSWORD * 

CONFIRM PASSWORD *

Confirm Password

ACCOUNT TYPE *

- UNDERGRADUATE STUDENT
- GRADUATE STUDENT
- POSTDOCTORAL RESEARCHER
- RESEARCH ADVISOR
- ORGANIZATION

Terms & Agreement

- PLEASE CONFIRM THAT YOU HAVE READ AND AGREE
WITH OUR TERMS & SERVICES

Register

2: Before

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Register

FIRST NAME

LAST NAME

E-MAIL ADDRESS*

PASSWORD*

Your password must contain at least at least 8 characters, one lowercase letter, one capital letter, and one number

CONFIRM PASSWORD*

ACCOUNT TYPE*

Select researcher, if you will use your account to search for research projects. Select "RECRUITER" if you will use your account to search for researchers for your research projects.

RESEARCHER

RECRUITER

Terms of Service*

I certify that I have read the [terms and conditions](#)

Register

2: After

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**SKILLS REQUIRED***

Multiple Selections Allowed

FUNDING AVAILABLE (OPTIONAL)

Check box if any sort of funding is available. If so, please specify the type and amount in the following description box.

DESCRIPTION*

B **I**

What will be expected from the job?

3: Before

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Post A Science Need

TOPIC

*Can either type or select topics

Wildlife, Invasive Species, Mammal Research

**SKILLS REQUIRED**

*Can either type or select skills

Data Analysis, Field Data Collection, Communication, Python

***PROJECT DESCRIPTION**

Describe the type of deliverables and expected outcomes a researcher will achieve during and after the research opportunity.

B I | x x | x x | x x

3: After

Picture 1: Creating an account page was modified to be more clear

Picture 2: a) Participants couldn't find terms and conditions so we made it more visible for others to see
b) website did not provide password requirements until the user attempted to input a password that doesn't meet the requirements we recommended adding it part of the registration page c) offered users the option to sign up as a 'Researcher' or 'Recruiter' instead of listing out different 'Student' options such as Undergraduate, Graduate, Ph.D, and Organization

Picture 3: a) 'Topic' and 'Skills' section did not have relevant options so we allowed open ended input and auto populated with relevant terms b) organizations should include project descriptions so in this section, we included a 'Project Description' text box for the type of deliverable expected

[Click here to access all the wireframes](#)

Takeaway

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significant because as a student myself I can empathize with our users knowing that it is difficult to search for research opportunities and for the NGOs, reaching out to others is not so easy as well. The purpose of this project is significantly valued because it aims to lend a voice to organizations and student researchers all across the world.

Although this study was constrained to remote testing and limited access to participants, our findings and recommendations address critical issues. Following these recommendations will help Sense and Sustainability to increase its user base, and distinguish itself from other job application websites.

You may also like

General Info

- Total No. Of Patients: 5,000
- Avg. Treatment Costs: \$xx,xxx
- Available Staff: 50
- Response Rate: 2 Staff per minute
- Business Division: Oncology

Patient Satisfaction

XXXXX HOSPITAL

92%

I have confidence in my physician

Strongly Agree	87%
Moderately Agree	12%
Do NOT Agree	1%

Hospital Staff Have been Friendly

Strongly Agree	85%
Moderately Agree	15%
Do NOT Agree	0%

Average Treatment Costs Per Division

- Oncology: \$xxx,xxx
- Cardiology: \$xx,xxx
- Dermatology: \$x,xxx
- Radiology: \$xx,xxx

Patients per Division

Division	Inpatient	outpatient
Oncology	1,500	100
Cardiology	3,000	450
Dermatology	500	30

Staff Data per Division

Division	No. Of Employees	Avg. Vacation
Oncology	100	5
Cardiology	80	20
Dermatology	60	25
Radiology	60	15

Rotations per Division

Division	Rotations
Oncology	3
Cardiology	8
Dermatology	2
Radiology	5
Nursing	6
Administrative	5
Orthopedics	0

Return on Investment (ROI) Healthcare Dashboard

2020

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