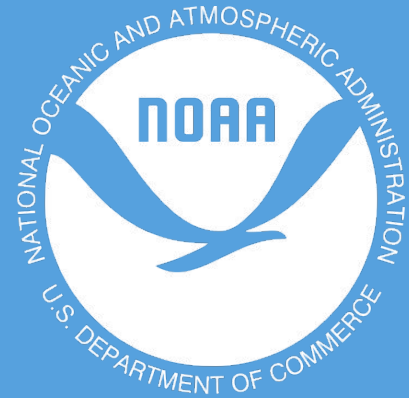


# Diversifying the federal workforce

A DEI recruiting tool for NOAA

Team Citrus

UW iSchool Capstone: Winter/Spring 2024



Information School  
UNIVERSITY of WASHINGTON

# Project Introduction

**Project Title:**  
Internal DEI Recruiting  
Tool

**Sponsor:**  
National Oceanic & Atmospheric  
Administration (NOAA)

## Team Citrus:



**Justin Sukomol**  
UX Designer + PM



**Sarah Thomas**  
UX Designer + PM



**Peijie Zheng**  
Developer



**Hung Nguyen**  
UX Designer



**Scott Nguyen**  
Developer

# Project Context

## What is NOAA?

- The National Oceanic and Atmospheric Administration is science-based federal agency
- Aims to understand and predict changes in climate, weather, ocean and coasts + manage coastal and marine ecosystems and resources

## Why NOAA?

- Team alignment with NOAA's mission to recruit a diverse workforce for the future
  - Provide diverse team POVs
  - Prior projects surrounding DEI initiatives
  - Potential to create a lasting impact

# Problem Context



## Lack of diversity in federal workforce

1/3 of the federal workforce will be eligible to retire by end of 2024

Executive order by President to improve outreach to underserved communities



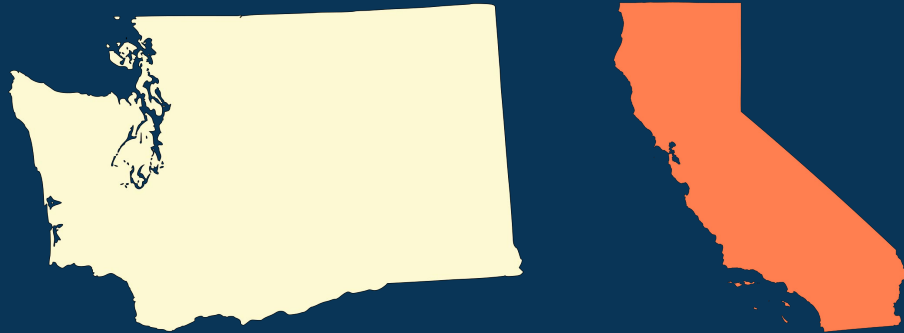
## Inability to connect with underrepresented students

No efficient tools to find underserved undergrad programs near NOAA offices

# Problem Context Continued

## Potential Demand

- Demand for increased tools encompasses WA and CA state NOAA employees (15+ offices)
- Most recent recruiting tool was made last year by a previous Capstone project
  - Lacks sophisticated data filtration, UI, & CA data



# Problem Statement

How might **NOAA staff** conducting recruiting efforts **achieve a more diverse workforce** so that they can better represent the communities they serve and **advance NOAA's mission**?

# Key Research Insights

## MARKET RESEARCH

- Data should be easy to understand → Less is more!



## USER RESEARCH

- “I am the only woman of color in a lab of 40 federal staff”
- NOAA recruits from same big universities



## LITERATURE REVIEW

- Diverse workforce → endless benefits
- Many companies lack a stance on DEI





**Elena Martinez**

NOAA Staff Member

# Persona #1

## SCENARIO

- Sole woman of color on the team
- Assists in NOAA internship recruitment

## PAIN POINTS

- Numerous universities to comb through
- UI challenging to navigate and digest

## GOALS

- Diversify NOAA's workforce
- Make educated decisions based on DEI goals
- Advanced filters



# Key Concepts

## Highlighting DEI Stance

- Important to contextualize DEI efforts — not just general statements

## Better Understanding of University Diversity

- Focusing on different types of schools with different demographics

## Outreach Efforts to Schools

- Effectively promote NOAA internship programs for targeted schools

# Concept Validation

## DEI

- Appreciation of the NOAA experiences for recruiting
- Better understanding of NOAA's DEI mission

## Demographics

- Clarity on how demographic data reflect DEI efforts
- How can recruiters reach out to targeted schools?

## Accessibility

- Use consistent language for a more intuitive experience
- Add annotations for acronyms/terminologies

# Solution Approach

## Website

- Responsive password protected

## Technologies

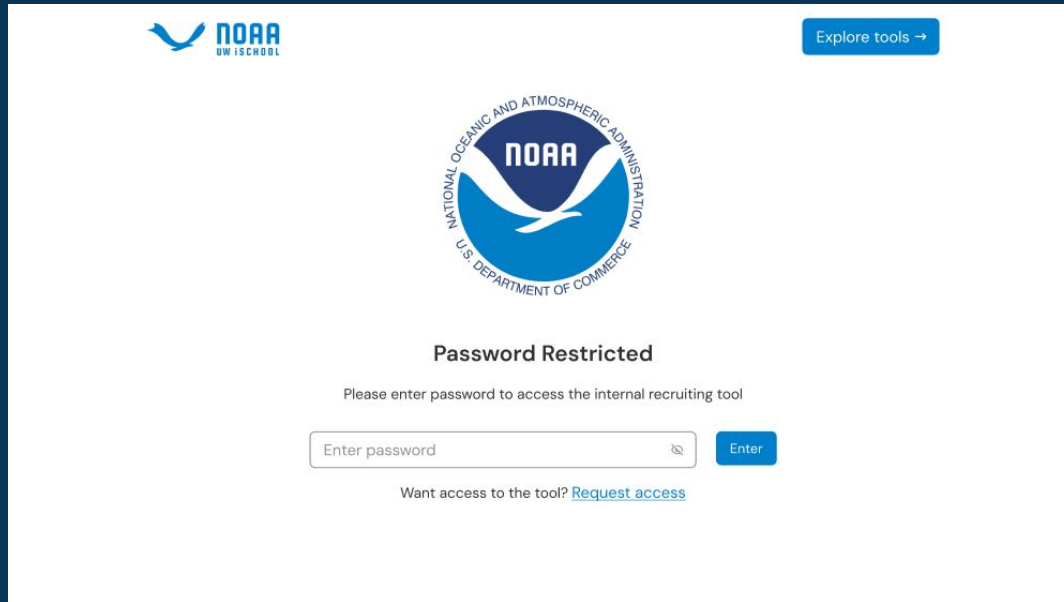
- React, Next.js, Tailwind CSS for development
- Vercel for deployment
- Github for version control & collaboration

## Future Management/Maintenance

- Transfer project ownership on hosted platforms (Github, Vercel)
- Create handoff to brief sponsor on how to continue forward

# Key Features

## Password Protection



The screenshot shows a web page with a white background. In the top left corner, there is a logo for NOAA UW ISCHOOL. In the top right corner, there is a blue button with the text "Explore tools →". In the center of the page is the NOAA logo, which is a circular emblem with a blue and white design, surrounded by the text "NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION" and "U.S. DEPARTMENT OF COMMERCE". Below the NOAA logo, the text "Password Restricted" is displayed in bold. Underneath that, a message reads "Please enter password to access the internal recruiting tool". Below the message is a text input field with the placeholder text "Enter password" and a small eye icon to its right. To the right of the input field is a blue button with the text "Enter". Below the input field and button, there is a link that says "Want access to the tool? [Request access](#)".

# Key Features Continued

## Data Table + Filters/Export

The screenshot displays the NOAA UW ISCHOOL interface. At the top left is the NOAA UW ISCHOOL logo. On the right, there is a "Log out" button. Below the header, there is a navigation bar with "Filter", "Washington" (dropdown), a search box "Search for a school or city", and buttons for "Data", "Map", and "Export".

The left sidebar contains a "Filters" section with a "Clear" button and a search box. It is divided into two categories:

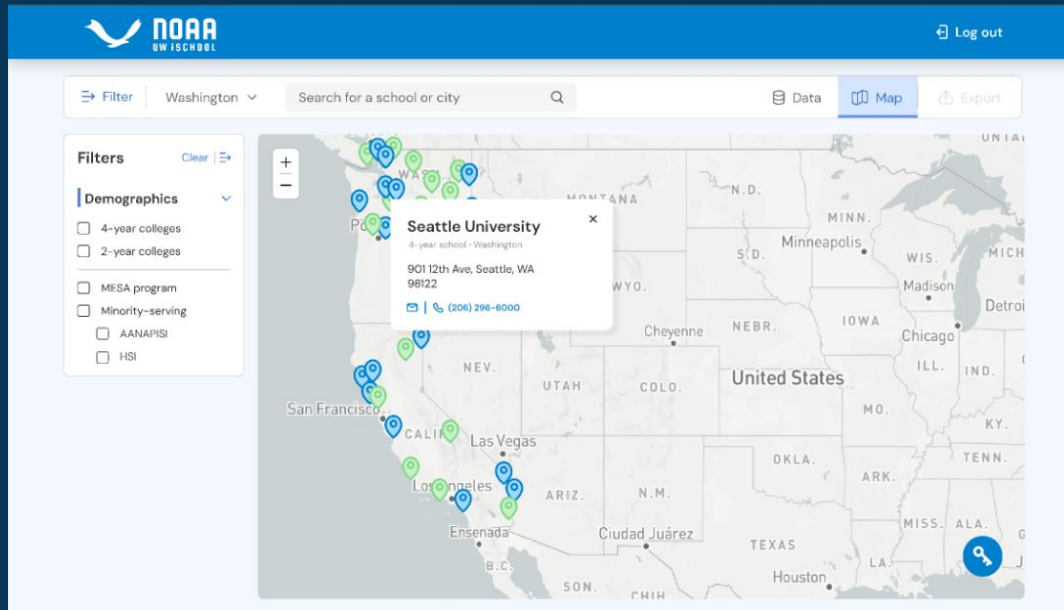
- Majors**:
  - Aeronautical Science
  - Atmospheric Science
  - Astronomy
  - Biology
  - Biochemistry
  - Biophysics
- Demographics**:
  - 4-year colleges
  - 2-year colleges
  - MESA program
  - Minority-serving
    - AANAPISI
    - HSI

The main data table has the following columns: University/College, Program, Location, MSI, MESA, % White | BIPOC, % Male | Female, % Male | Female, and % Male | Female. The table contains 10 rows of data for the University of Washington, all 4-Year programs in Seattle, with consistent demographic values (MSI: Yes, MESA: Yes, % White | BIPOC: 50%, % Male | Female: 60%, % Male | Female: 70%, % Male | Female: 80%).

At the bottom of the table, there is a "Show 10 entries" control and a pagination control showing "1 2 3 4 ... 10".

# Key Features Continued

## Map Visualization



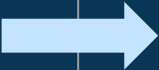
# Demo



# User Testing

## Usability Testing

- Conducted testing sessions with 4 NOAA employees and 1 iSchool Associate Director via 30-minute interviews
- Validated major website features for user-friendliness and clarity

<b>User Insight</b>	 <b>Change</b>
<i>"I wish there was an added filter to explore this demographic..."</i>	Added a new filter ("TCU") to the Data and Map tools for further exploration
<i>"I don't know what the filter section's acronyms stand for"</i>	Include a popup icon that provides an explanation of the filter's information.
<i>"Where did this data come from?"</i>	Stated where the data came from on the homepage



# Ethical Considerations

## Recruitment practices aligning with DEI

### NOAA's Commitment to DEI:

- Questioning if the tool will help reinforce unbiased hiring

## Address responses and misrepresentations

### Federal Commitment:

- Will applicants be more inclined to apply knowing about the effort of DEI?

## Adhering to data privacy laws and regulations

### Data Collection:

- Handling public data confidentially

# Future Steps

## Project Documentation

- Proper documentation & knowledge transfer to sponsor + future capstone groups

## Sustaining NOAA/School Relationships

- Provide ways to reach out to targeted schools
- Connect NOAA with school career services

## Further Development

- Collect data for additional U.S. states
- Add data visualizations
- Ability to search within map tool

**Thank you!**

# References

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[https://www.google.com/url?sa=i&url=https%3A%2F%2Fcommons.wikimedia.org%2Fwiki%2FFile%3AWashington-state-map\\_h.svg&psig=AOvVaw03ZKFHaxRlnLZtqUuqemD3&ust=1709189296049000&source=images&cd=vfe&opi=89978449&ved=0CBMQjRxqFwoTCJDGt9q4zYQDFQAAAAAdAAAAABAE](https://www.google.com/url?sa=i&url=https%3A%2F%2Fcommons.wikimedia.org%2Fwiki%2FFile%3AWashington-state-map_h.svg&psig=AOvVaw03ZKFHaxRlnLZtqUuqemD3&ust=1709189296049000&source=images&cd=vfe&opi=89978449&ved=0CBMQjRxqFwoTCJDGt9q4zYQDFQAAAAAdAAAAABAE)