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Improving DEI Outcomes in the recruitment process

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Team Bios



Sophia Jawort

I firmly believe in designing technologies for positive real world change and am excited to make impactful changes on the recruiting process with Included!



Katie Hancock

I believe that design should be usable, enjoyable, and accessible to all, and I strive to create solutions that make a positive impact on people's lives. I'm excited to partner with Included to improve diversity in the job recruitment process.



Shivank Mistry

I am interested in the relationship between technology, ethics, and society. To that end, I enjoy designing systems and technologies that promote the equity, agency, and sustainability of individuals and communities.



Nikta Farahani

I'm an aspiring UX designer as well as web developer. I take interest in promoting diversity in both systems and work places.

Executive Summary

The need to hire diverse, qualified candidates is crucial for companies that are committed to improving DEI outcomes. Currently, recruiters face tensions between promoting diverse candidates while maintaining equal opportunity for all. This makes prioritizing diversity a challenge.

Our project centers around the design question, “How might we improve the recruitment process by matching hiring needs to qualified, diverse candidates?”

Executive Summary

We conducted an informal literature review and a interview study with four recruiters to better understand the problem space, and specifically how recruiters currently approach diversity, equity, and inclusion.

After synthesizing research data our team ideated back and forth with our sponsor on potential solutions.

Once we settled on our final design solution we began the design and development of our prototype of a sourcing feature to help recruiters connect with underrepresented candidates.

Research

Research Overview

Our research included a comprehensive literature review and interviews with recruiters and HR professionals. This research provided valuable insight into the legal climate of diversity in recruitment, company-based definitions of diversity, recruitment practices in diversity hiring, and recruiter needs and concerns.

Main findings are as follows:

1. Equal opportunity is fundamental to hiring.
2. Companies have varied, simplified definitions of diversity.
3. Recruitment and hiring strategies may have unintended consequences in diversity hiring.
4. Metrics-based quotas may be reductive to the complex nature of diversity.
5. Diversity in hiring is not homogeneous, and differs from role to role and company to company. Additionally, applicants are also a critical stakeholder in diversity hiring.

Literature Review

Our literature review provided valuable insight into the legal climate of diversity in hiring and existing diversity-related solutions in hiring.

We selected twelve peer-reviewed or legislative works. This literature helped us understand the importance of equal opportunity, existing work in the DEI hiring landscape, and organizational definitions of diversity.

By engaging in existing literature, we gained knowledge from existing approaches and developed a better understanding of the HR and recruitment climate better. Since we do not have any experience in this environment, understanding restrictions, rules, and perspectives on diversity in hiring was crucial.

Literature Review: Legal Foundations

The most salient insight from our reviews come from the legal and historical foundation of equal opportunity employment.

The Civil Rights Act of 1964 prevents “discrimination based on race, color, religion, sex and national origin.” This prevents any hiring decision to be based off of these protected groups. Because of this, encouraging diversity in hiring becomes a balance between maintaining equal opportunity for all, while promoting historically marginalized groups.

In practice, HR professionals need to be cognizant of discrimination in hiring patterns. Adverse impact is discrimination of a protected group from employment practices that are seemingly neutral. To prevent adverse impact, companies need to ensure that no groups are unfairly hired relative to others. For example, if a company receives applicants that are made up of 30% people of color and 70% white people, the ratios of those who are interviewed and hired should match with this original applicant ratio.

Literature Review: Definitions of Diversity

Another important takeaway from the literature review was about definitions of diversity. To design systems to improve diversity in recruitment, it is important to have a foundational definition of "diversity." Diversity is a nuanced topic that incorporates countless dimensions of human experience.

While it is debatably reductive, diversity in the workforce needs to be simplified for organizations to grasp and implement diversity. This simplification reduces diversity in its holistic nature, while making measurable and attainable.

From the perspective of businesses, there needs to be measurable impact that can translate into a return on investment. Since the primary goal of the business is to generate profit, making decisions on the margin of cost and benefit is a style of decision making that diversity in hiring needs to follow if it wants to be practical.

Interviews

Through a comprehensive recruitment process we carefully selected four participants that met our specific criteria. Each participant contributed their time by engaging in a 30- minute semi-structured interview which allowed us to ask open-ended questions while still maintaining control over the interview direction.

Following the completion of the interviews, we analysed the data and identified significant themes from the participants' responses.



Interview Findings

The themes and problems from our analysis served as building blocks for the development of our three major research findings.

1. We discovered that recruitment strategies can have unintentional consequences on diversity goals, with systemic and individual biases influencing the process.
2. We identified tensions between company awareness and diversity, equity, and inclusion (DEI) programs. The use of quantitative metrics to evaluate DEI initiatives, such as concrete quotas, can sometimes create challenges, while abstract goals can put more focus on the intention behind DEI recruiting and hiring efforts.
3. We found that there is a balance between candidate agency and organizational requirements in qualifying or rejecting candidates. Companies may have varying stances on DEI, and candidates are encouraged to research companies' diversity policies and practices. Additionally, requirements for DEI may vary depending on the role, such as new hires versus senior positions.

Design Phase

Design Overview

Once we had better insight into recruiters processes and the problems they were facing in regards to DEI we began our design process.

We started with ideation and spent time brainstorming and paper prototyping potential solutions. After much back and forth we settled on our final design solution and created wireframes to support the prototype.

Ideation - Potential Problem Spaces

After thorough analysis of our research and interviews, we identified the following problem spaces and their respective potential solutions.

The problem spaces we identified were as follows:

1. Adverse impact compliance
 - a. Though not highlighted as much in our research we learned from our sponsor that the recruiting industry lacks tools to help recruiters stay in compliance with adverse impact
2. Referrals and internal mobility are hindrances to diversity, which proves there is space to improve these processes
3. Sourcing diverse candidates

Ideation - Initial Ideas

After identifying problem spaces we came up with potential solutions to present to our sponsor and receive feedback on.

Our initial ideas included:

1. Affordances to Support Compliance with adverse impact
2. DEI Impact Report
3. Sourcing Diverse Qualified Candidates from LinkedIn
4. Extracting Diverse, Qualified Candidates From a Database of Resumes
5. Redesigning the Referral System

A major limitation that our group encountered during the ideation phase was coming up with a solution that was legal in regards to discrimination and equal opportunity but also helpful for recruiters in supporting DEI efforts.

Ideation - Final Design Solution

After much deliberation and back and forth with our sponsor our team settled on a feature that would help recruiters source more diverse candidates. There was much more flexibility, legally, in the sourcing phase of the recruitment process than when reviewing applicants.

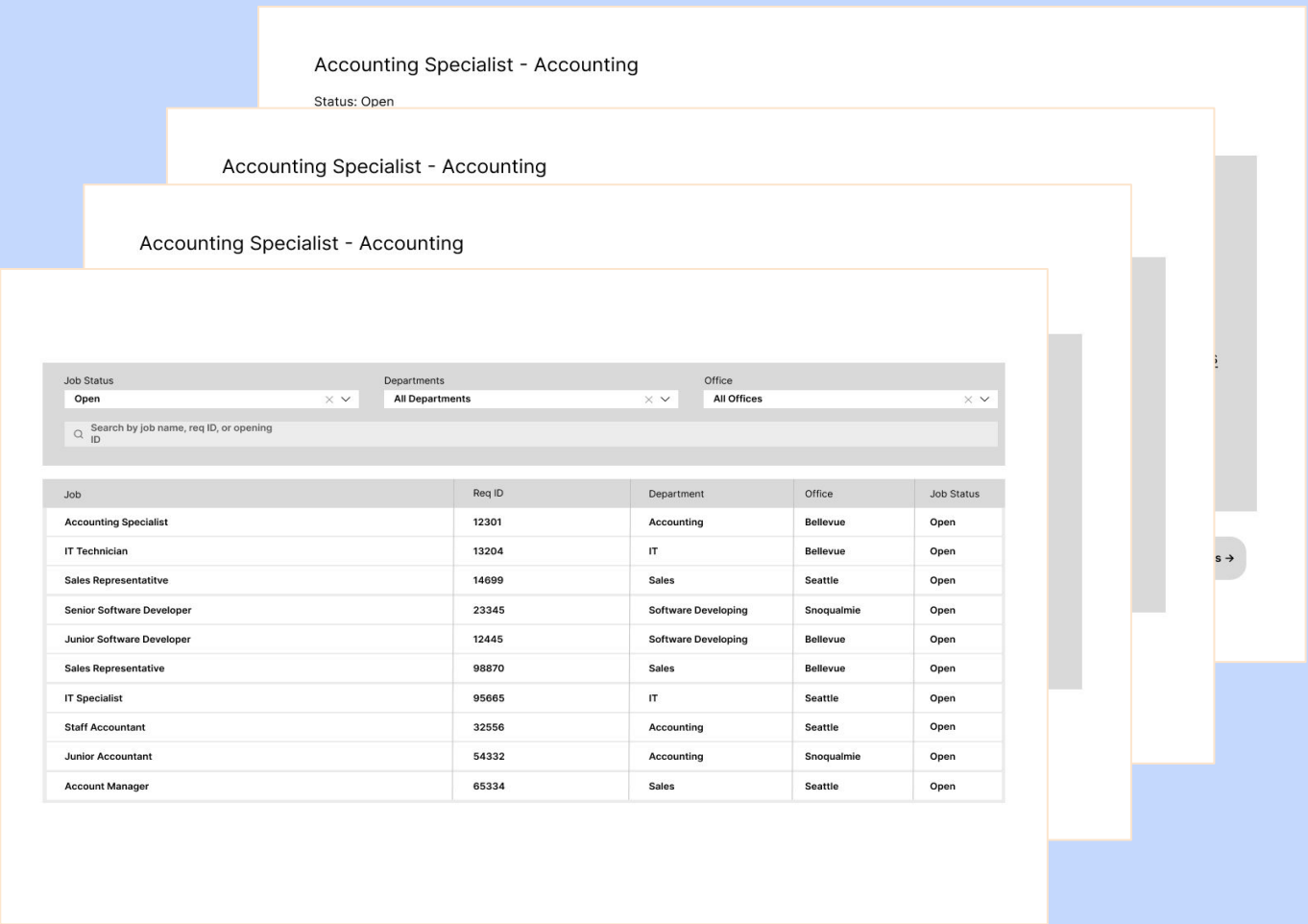
We also wanted to incorporate our research findings into our solution. One major theme that we encountered was that diversity changes from company to company. Our final solution accounts for this by defining diversity based on what a specific job role is lacking, then recommends resources for the recruiter to source underrepresented candidates. For example, if a recruiter is hiring for an electrical engineer, they are demographic information of all the electrical engineers at the company compared to the overall company. They are then recommended organizations and job boards based on shortfalls identified in the comparison.

This solution drew on aspects presented in ideas #2 and #4 on the previous slide, modified to better suit the sourcing phase of the recruitment process.

Low-Fidelity Wireframes

The low fidelity wireframes addressed the need for diversity within specific job roles by employing a strategy that defines diversity based on the areas lacking representation within a particular role. We designed our wireframes to encourage recruiters to use resources to source underrepresented candidates.

The inclusion of a demographic visual provides a clear representation of the current demographic makeup for the specific job role within the company and allows recruiters to visualize areas of improvements.




The wireframes also offer sourcing resources to recruiters by providing organizations and job boards that are known for attracting diverse candidates.

High-Fidelity Wireframes

In the high fidelity wireframes, we incorporated three key features to optimize the sourcing process. These features include:

- (1) A demographic visual based on the company, office, and position.
- (2) Sourcing information improves diversity within a role, provided as webpages and organizations for recruiters to explore.
- (3) Additional options to expand the reach of the job posting through various job boards.
- (4) Sorting by qualifications feature on candidates page



Electric Engineer- Control Systems

Status: Open
Req ID: 12301
Office: Bellevue


Sort By

Resume/CV Status

Location

Status

Full Name	Candidate ID	Resume/CV	Location	Status
Sofia Alia Rodriguez	5512301	Available	Bellevue	Qualified
Ahmed Malik Khan	3513204	Available	Bellevue	Qualified
Isabella Mei Chen	6146699	Available	Seattle	Interviewing
Alejandro Juan Ramoz	2362345	Not Available	Snoqualmie	Withdrew
Aisha Fatima Ahmed	1256445	Available	Bellevue	Qualified
Ethan James Thompson	9880970	Available	Bellevue	Pre-screening
Leila Marie Johnson	9562565	Available	Seattle	Interviewing
Rohan Singh	3482556	Available	Seattle	Interviewing
Maya Nou				
Luce Gabi				



Electrical Engineer- Control Systems

Status: Open

Position Overview: We are seeking a highly skilled and experienced Electrical Engineer to join our dynamic team. As an Electrical Engineer, you will play a key role in designing, developing, and implementing electrical systems and components. Your expertise will be essential in ensuring the safety, reliability, and efficiency of our electrical infrastructure. This position offers an exciting opportunity to contribute to cutting-edge projects and make a significant impact in the field of electrical engineering.

Key Responsibilities:

- 1. Design and develop electrical systems: Collaborate with cross-functional teams to conceptualize, design, and implement electrical systems and components. Create detailed electrical drawings, schematics, and specifications, considering factors such as safety, cost-effectiveness, and energy efficiency.
- 2. Conduct feasibility studies: Evaluate the feasibility of electrical system designs and propose innovative solutions to overcome technical challenges. Perform comprehensive analysis and simulations to optimize system performance.
- 3. Ensure compliance and safety: Stay up-to-date with electrical codes, standards, and regulations to ensure all designs and installations adhere to the required safety guidelines. Conduct thorough testing and inspections to identify and resolve any electrical issues or potential hazards.
- 4. Oversee project execution: Collaborate with project managers and teams to coordinate the implementation of electrical systems within defined budgets and timelines. Provide technical guidance and support during the construction, installation, and commissioning phases.
- 5. Troubleshooting and maintenance: Diagnose and troubleshoot electrical failures or malfunctions and implement effective solutions. Develop and execute preventive maintenance plans to ensure optimal performance and reliability of electrical systems.
- 6. Collaborate with stakeholders: Engage with internal and external

Demographic Visual Based on xyz

Demographic visual

View Sourcing Information

Current Applicants

Prototyping

Technical Implementation Overview

After creating wireframes our team began the technical implementation of our prototype. We wanted to make something clickable for recruiters to better understand how our sourcing feature would fit into their normal processes.

The technical implementation included the following steps:

- Generating and compiling data for a company and diverse organizations
- Creating data visualizations in tableau
- Developing a backend database of resumes
- Developing a front-end prototype

Generating Company Demographics

Since our solution relies on comparing demographic data across a company, for the sake of our prototype, we needed to generate company data.

Companies have to report demographic data to the Equal Employment Opportunity Commission in order to stay compliant with anti-discriminatory laws. This may include information like veteran status, disability, gender, and race. To leverage this existing data, we generated a company of around 250 employees ranging from the C-suite executives to individual contributors such as engineers and analysts. Using Excel, we assigned each individual with demographics that may reflect an actual organization hoping to improve their diversity. For example, most of the managers in our generated company are white males without disability.

Generating Company Demographics

Employee ID	Race	Veteran Status	Disability Status	Age	Gender	Location	Job Fam	Management Le	Role
1	White	Not a Protected Veteran	No Self-Identified Disabi	57	Male	Seattle	Executive	Chief Executive	CEO
2	Asian	Not a Protected Veteran	No Self-Identified Disabi	59	Female	Seattle	Executive	Chief Executive	CFO
3	White	Protected Veteran	No Self-Identified Disabi	55	Male	Seattle	Executive	Chief Executive	CPO
4	White	Not a Protected Veteran	No Self-Identified Disabi	58	Male	San Fransisco	Executive	Chief Executive	CLO
5	Black or African American	Not a Protected Veteran	No Self-Identified Disabi	65	Male	Seattle	Executive	Chief Executive	CMO
6	White	Not a Protected Veteran	No Self-Identified Disabi	50	Male	Seattle	Finance	Executive	VP Finance
7	White	Not a Protected Veteran	No Self-Identified Disabi	64	Male	Seattle	Accounting	Executive	VP Accounting
8	White	Not a Protected Veteran	No Self-Identified Disabi	59	Female	Seattle	IT	Executive	VP IT
9	Hispanic	Not a Protected Veteran	No Self-Identified Disabi	57	Male	NYC	HR	Executive	VP HR
10	White	Not a Protected Veteran	No Self-Identified Disabi	56	Male	Seattle	Operations	Executive	VP Operations
11	Hispanic	Not a Protected Veteran	No Self-Identified Disabi	51	Male	Seattle	R&D	Executive	VP R&D
12	Two or More Races	Protected Veteran	No Self-Identified Disabi	63	Male	NYC	Design	Executive	VP Design
13	Hispanic	Not a Protected Veteran	No Self-Identified Disabi	50	Male	NYC	Legal	Executive	VP Legal
14	White	Not a Protected Veteran	No Self-Identified Disabi	66	Female	NYC	Legal	Executive	VP Legal
15	Asian	Not a Protected Veteran	No Self-Identified Disabi	60	Male	Seattle	Sales	Executive	VP Sales
16	White	Not a Protected Veteran	No Self-Identified Disabi	55	Male	Seattle	Marketing	Executive	VP Marketing
17	Two or More Races	Not a Protected Veteran	No Self-Identified Disabi	56	Female	NYC	Finance	Manager_1	Senior Finance Manager
18	Asian	Not a Protected Veteran	No Self-Identified Disabi	54	Female	NYC	Finance	Manager_1	Senior Finance Manager
19	White	Not a Protected Veteran	No Self-Identified Disabi	64	Male	Seattle	Finance	Manager_1	Senior Finance Manager
20	White	Not a Protected Veteran	No Self-Identified Disabi	65	Male	Seattle	Accounting	Manager_1	Senior Accounting Manager
21	White	Not a Protected Veteran	No Self-Identified Disabi	64	Male	San Fransisco	Accounting	Manager_1	Senior Accounting Manager
22	Asian	Not a Protected Veteran	Self-Identified Disability	28	Male	NYC	Accounting	Intern	Accounting Intern
23	Hispanic	Not a Protected Veteran	No Self-Identified Disabi	28	Female	Seattle	Accounting	Entry	Accounts Manager
24	White	Protected Veteran	No Self-Identified Disabi	21	Female	Seattle	Accounting	Entry	Accountant
25	White	Not a Protected Veteran	No Self-Identified Disabi	26	Female	Seattle	Accounting	Associate	Accountant

Screenshot of the generated company data. The demographic columns are all information collected by the EEOC. This information was generated with Excel using VLookup commands.

List of DEI Organizations/Job Boards

After generating our company, we needed to source a list of job boards and diversity organizations to use on our recommendation system.

We went through an online search to identify appropriate job boards and organizations. We identified 30 organizations. Which each organization, we provided supporting information like price, a description, a link to their website, and what demographic category they support.

We then joined this organization list with the generated company data which allowed us to recommend organizations to partner with based on the demographics of the generated company data. This is the technical foundation of the recommendation system we designed.

Demographic Visualizations

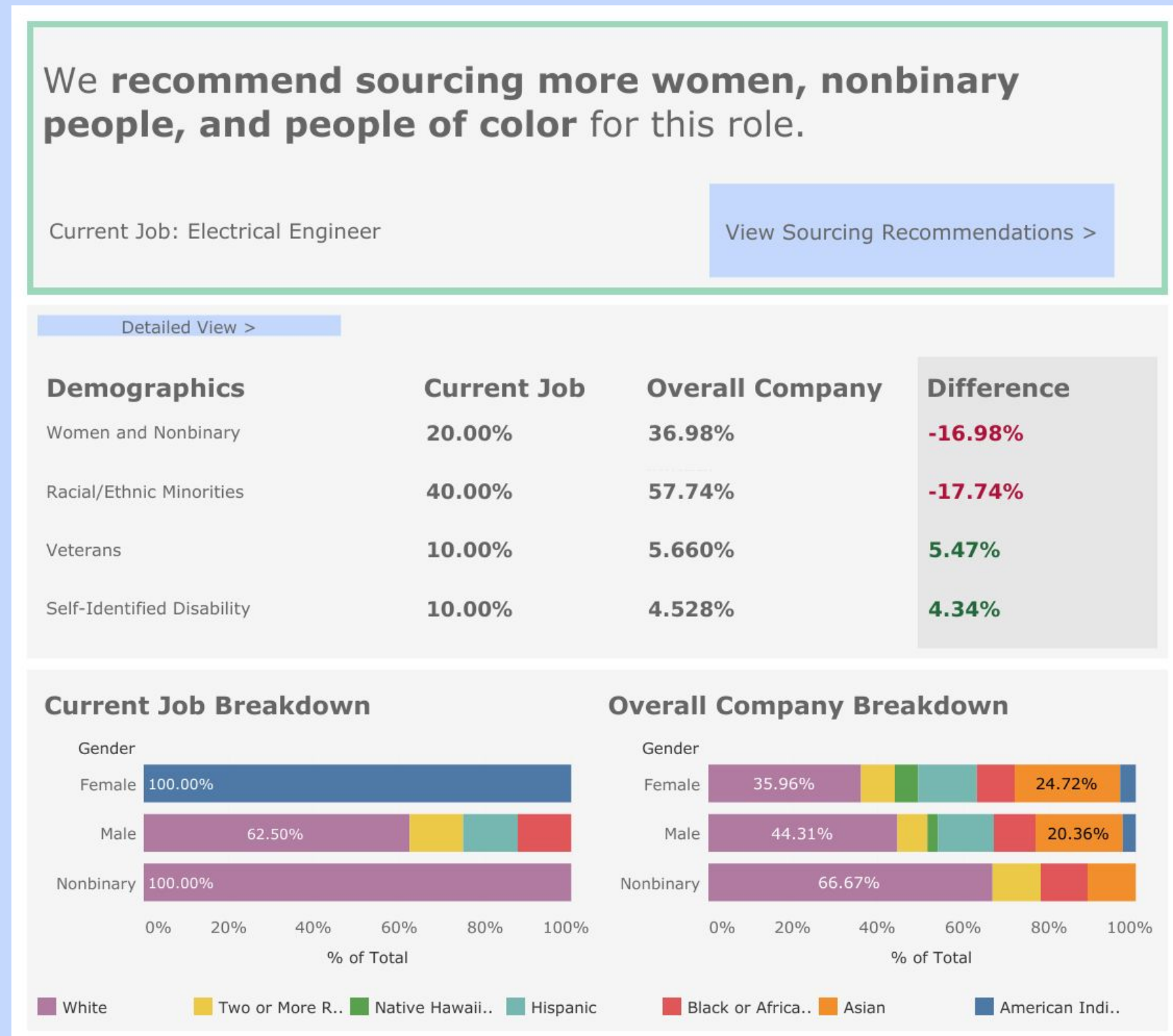
After generating company data and sourcing a list of DEI organizations to recommend, we began the visualization process. We designed the data visualizations with Excel and Tableau. The dashboard is hosted on Tableau Public and can be viewed [here](#).

This iterative process was based off insight from research, feedback from our sponsor, and feedback from recruiters. After receiving feedback, we settled on the final design. The individual components of the final design are described in the next pages.

Main Demographic Page

This is the main demographic page that is viewed first by the recruiter. The direct action is written at the top. The users are then directed to action with the Sourcing recommendations button.

The demographics table provides a detailed comparison between the current role and the overall company. The shortfalls are then highlighted. The bottom visualizations provide a more intersectional view as it combines race and gender to give a more accurate breakdown of people in the given role and the company.

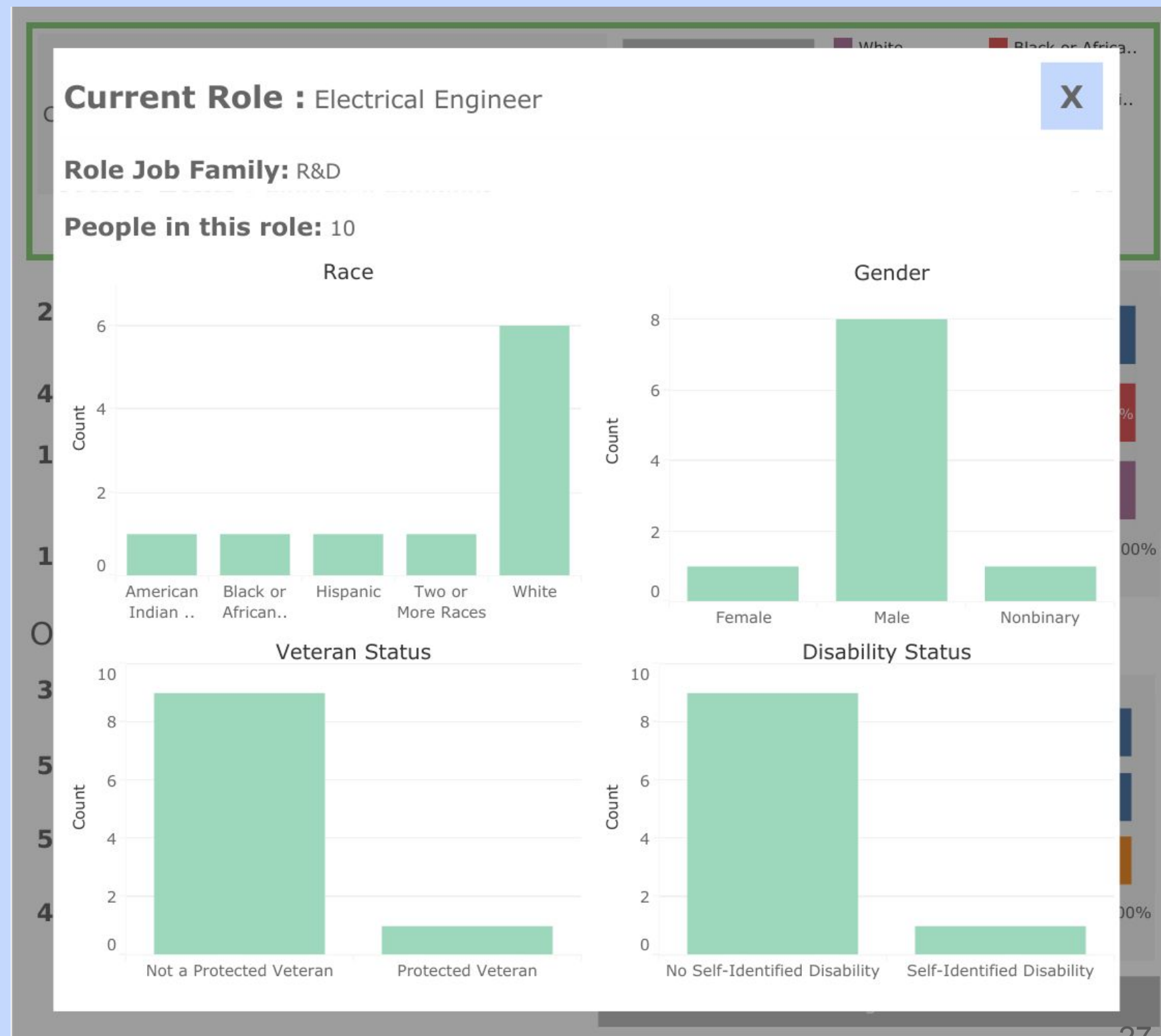


Detailed Demographic Page

If a recruiter wishes, they can then navigate to the detailed demographic page. They can view the specific breakdown of protected groups, including race, gender, veteran status, and disability.

The main page provides percentages of demographic information while this page provides raw counts.

By giving raw counts, recruiters can better understand the demographic environment of the role. Percentages can also be misleading if the counts are low.



Organizations List

After viewing the demographic report, the recruiter navigates to sourcing recommendations. The action for the recruiter is presented immediately at the top. The list of recommendations is based off the role, in this case, hiring a new electrical engineer.

The list of organizations each have a description, a price range if available, and a link. The recruiter can then reach out to these organizations to help mitigate demographic shortfalls previously identified in the visualization.

Organizations

Current Job: Electrical Engineer

Based on existing demographics for this role, **we recommend reaching out to the following organizations.**

Advancing Indigenous People in STEM	The American Indian Science and Engineering Society (AISES) is a national nonprofit organization focused on substantially inc..	\$50,000 - \$100,000 / annually	https://www.aises.org/
National Society of Black Engineers	The National Society of Black Engineers (NSBE) is one of the largest student-governed organizations based in the United States. NSBE's missi..	\$40,000 - \$60,000 / annually	https://www.nsbe.org/
Society of Asian Scientists and Engineers	SASE is dedicated to the advancement of Asian heritage scientists and engineers in education and employment so that they ca..	N/A	https://www.saseconnect.org/
Society of Hispanic Professional Engineers	SHPE changes lives by empowering the Hispanic community to realize its fullest potential and to impact the world through S..	N/A	https://shpe.org/
Society of Women Engineers	SWE aims to empower women to achieve their full potential in careers as engineers and leaders; expand the image of the en..	N/A	www.swe.org

< View Demographics

View Job Boards >

28

Job Boards List

Similar to the organizations list, the job boards list provides resources to post the job to hire diverse candidates. Like the organizations list, this list is recommended based on shortfalls identified for hiring an electrical engineer. This can change based on the role the recruiter is hiring for.

With each job board name, there is a link that the recruiter can navigate to in order to post the job and source diverse candidates.

Job Boards

Current Job: Electrical Engineer

Based on existing demographics for this role, **we recommend sourcing with the following job boards.**

APIA Scholars	https://apiascholars.org/job-board/
Black Career Network	https://www.blackcareernetwork.com/
Career Contessa	https://www.careercontessa.com/
Native Hire	https://www.nativehire.org/

[< View Organizations](#)

Backend Database of Resumes

We developed a backend database on Microsoft SQL Server to store and manage candidate resumes. The tables created were: Employees, Hiring, Candidates, Work Experience, Education, Skills, and Diversity. By utilizing this backend database, we enable hiring managers and recruiters to effectively filter and sort applicants based on various criteria to identify diverse and qualified candidates for job recruitment.

CandidateID	Name	Email	Phone	Location	Status
1	Jack Wilson	jackwilson@gmail.com	1234567890	Seattle, WA	Application
2	Jasmine Jackson	jjackson@hotmail.com	2345678901	Bellevue, WA	Prescreening
3	Taylor White	taylorwhite@yahoo.com	3456789012	Redmond, WA	Interviewing
4	Liam Nguyen	liamnguyen@gmail.com	4567890123	Kirkland, WA	Application
5	Emma Johnson	emmaj@hotmail.com	5678901234	Seattle, WA	Application
6	Riley Walker	rw12@yahoo.com	6789012345	Seattle, WA	Prescreening
7	Kevin Kim	kevinkim@gmail.com	7890123456	Bellevue, WA	Interviewing
8	Carlos Rodriguez	carlosrodriguez@yahoo.com	8901234567	Redmond, WA	Application
9	Andrew Thompson	andrewthompson@gmail.com	9012345678	Kirkland, WA	Prescreening
10	Mia Wong	mia.wong@yahoo.com	1234567890	Seattle, WA	Interviewing
11	Olivia Miller	oliviamiller@gmail.com	2345678901	Bellevue, WA	Application
12	Ethan Walker	ewalker72@hotmail.com	3456789012	Redmond, WA	Prescreening

Candidates Table

Python Code: Connecting Backend to Frontend

Our Python code serves as a bridge between the backend database and the frontend website. It utilizes the Flask framework and pyodbc library to retrieve data from the Microsoft SQL Server database.

By using this Python code, we establish a connection between the backend database and the frontend website. It enables the hiring managers and recruiters to access applicant data in real-time through the website interface, facilitating efficient candidate evaluation and selection.

```
def get_data():  
    # Establish a connection to the database  
    connection = pyodbc.connect(  
        f"DRIVER={db_config['driver']}";  
        f"SERVER={db_config['server']}";  
        f"DATABASE={db_config['database']}";  
        f"UID={db_config['username']}";  
        f"PWD={db_config['password']}"  
    )  
  
    # Create a cursor object to execute SQL queries  
    cursor = connection.cursor()  
  
    # Execute your SQL query  
    cursor.execute("SELECT FullName, CandidateID, Location, CurrentStatus FROM Candidate")  
  
    # Fetch all the data from the query result  
    data = cursor.fetchall()  
  
    # Close the cursor and the connection  
    cursor.close()  
    connection.close()  
  
    return data
```

The get_data() function, which pulls the data from the database

Front-End Prototype

We wanted to create a clickable prototype that could also embed our data visualizations from tableau.

The front-end was developed using HTML, CSS, and JavaScript. The front-end closely resembles our high-fidelity wireframes.

Currently, the front-end prototype only supports the user pathway for hiring an electrical engineer, but templates for further development are provided.

The prototype utilizes a flask application framework. The code for the prototype can be found [here](#).

Job Status

Departments

Office

Job Status

Departments

Office

Search by job title, req ID, or opening ID

Job	Req ID	Department	Office	Job Status
Electrical Engineer	12301	Research and Development	Bellevue	Open
Data Analyst	13204	Operations	Bellevue	Open
Software Engineer	14699	Research and Development	Seattle	Open
Senior Software Developer	23345	Software Development	Snoqualmie	Open
Junior Software Developer	12445	Software Development	Bellevue	Open
Sales Representative	98870	Sales	Bellevue	Open
IT Specalists	95665	IT	Seattle	Open
Staff Accountant	32556	Accounting	Seattle	Open
Account Manager	65334	Sales	Seattle	Open

Electrical Engineer

Status: Open

Req ID:12301

Office:Bellevue

Job Summary: We are looking for a highly skilled Electrical Engineer to design, develop, and test electrical systems and equipment for our products. The successful candidate will be responsible for analyzing data and designing solutions that meet our clients' needs. The ideal candidate will have experience with electrical system design, analysis, and troubleshooting. They should be able to work independently and as part of a team to deliver quality products on time. Key Responsibilities:

- Design and develop electrical systems and equipment for new and existing products
- Analyze data to determine the feasibility of proposed designs
- Troubleshoot and repair electrical equipment and systems as needed
- Collaborate with other engineers and team members to ensure projects are completed on time and within budget
- Conduct research to stay up-to-date on new technologies and advancements in the field
- Develop and maintain accurate documentation related to designs, specifications, and testing procedures

Qualifications:

We recommend sourcing more women, nonbinary people, and people of color for this role.

Current Job: Electrical Engineer

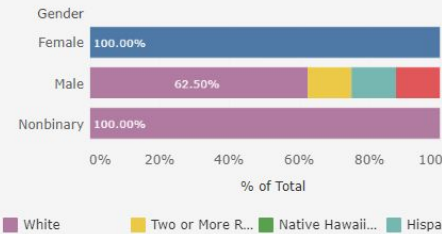
View Sourcing Recommendations >

Detailed View >

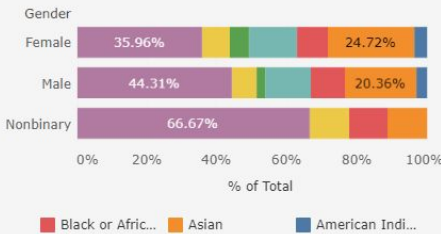
Demographics

	Current Job	Overall Company	Difference
Women and Nonbinary	20.00%	36.98%	-16.98%
Racial/Ethnic Minorities	40.00%	57.74%	-17.74%
Veterans	10.00%	5.660%	5.47%
Self-Identified Disability	10.00%	4.528%	4.34%

Current Job Breakdown



Overall Company Breakdown



View Current Applicants

Evaluation

Evaluation Overview

We conducted three informal feedback sessions with the same recruiters we previously interviewed to understand their perspectives on the prototype and its potential to help with diverse candidate sourcing.

Participant 1:
Noted that the feature's effectiveness could be impacted by candidates choosing not to identify their demographics

Participant 2:
Suggested the ability to filter and customize data to focus on specific demographics

Participant 3:
Discussed the importance of training, education, and inclusive language in job postings

Participants expressed appreciation for the feature's potential to increase awareness and provide accessible data for recruiting decisions. They identified the need for clearer actions, improved visualizations, additional filtration options, and more information about job organizations. The feedback highlighted the importance of effectively weaving diversity, equity, and inclusion (DEI) into recruitment strategies and demonstrating return on investment (ROI) for the feature.

We iterated on the design and incorporated the suggested changes based on this feedback.

Informal Feedback Session Goals + Questions

Our main goals of the informal feedback session were to gather overall insights and opinions, understand recruiter expectations, identify frustrations and areas for improvement, and assess the feature's overall potential to support DEI goals in companies.

The questions that we asked include:

- What do you think would be most frustrating about this feature?
- To what extent does this feature match your expectations of a tool to help with diverse sourcing?
- In what ways can this product help or hinder you as a recruiting manager?
- What elements of this feature are least important to you?
- What would you like to change about this feature?
- Do you think that this feature would be able to help DEI goals in a company?

Evaluation Analysis

Through the informal feedback sessions, we were able to gain some valuable insights into which areas of our project were doing well, and which areas we could improve upon.

Positive Feedback:

- Valuable Resource: Recruiters recognized the potential value of the feature for raising awareness and providing actionable diversity data.
- Partnering Opportunities: The inclusion of organizations and job boards was seen as important for effective sourcing and building strategic partnerships.
- User-Friendly Interface: The overall design and dashboard aesthetics were appreciated, but clarity and intuitive navigation were suggested for improvement.

Improvement Areas:

- Definitions and Hover: Participants requested clearer definitions for terms and the ability to hover over elements to understand their meaning.
- Alignment and Expectations: Some recruiters mentioned the importance of aligning the feature with their specific diversity goals and strategies.
- Actionability: Recruiters desired clearer calls-to-action and guidance in how to use the feature effectively to drive diversity outcomes.

Iteration - Incorporating Sponsor and User Feedback

Our team had a week to incorporate feedback from our sponsor and recruiter testers into the final iteration of our prototype. We received a lot of feedback on our initial prototype. Unfortunately, it was not feasible to incorporate it all. But we agreed upon what would be the most valuable items to address and worked those into our final deliverable.

- Feedback we incorporated from our sponsor
 - Clearly highlight discrepancies in diversity in a job role compared to the whole company
 - Do not leave data for the recruiters to interpret, make it direct and clear
 - Present the issue first, then show how the data supports
- Feedback we incorporated from recruiters
 - Make it easier for recruiters to take direct action from the feature
 - Would be helpful for recruiter to know prices of the organizations
 - Make data visualizations more intuitive

Final Deliverable

Final Deliverable : User Flow (Screens 1 + 2)

Job Status

Departments

Office

Job Status

Departments

Office

Q

Search by job title, req ID, or opening ID

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IT Specalists	95665	IT	Seattle	Open
Staff Accountant	32556	Accounting	Seattle	Open
Account Manager	65334	Sales	Seattle	Open

Screen 1 : Dashboard of current job positions

Electrical Engineer

Status: Open
Req ID:12301
Office:Bellevue

Job Summary: We are looking for a highly skilled Electrical Engineer to design, develop, and test electrical systems and equipment for our products. The successful candidate will be responsible for analyzing data and designing solutions that meet our clients' needs. The ideal candidate will have experience with electrical system design, analysis, and troubleshooting. They should be able to work independently and as part of a team to deliver quality products on time. Key Responsibilities:

- Design and develop electrical systems and equipment for new and existing products
- Analyze data to determine the feasibility of proposed designs
- Troubleshoot and repair electrical equipment and systems as needed
- Collaborate with other engineers and team members to ensure projects are completed on time and within budget
- Conduct research to stay up-to-date on new technologies and advancements in the field
- Develop and maintain accurate documentation related to designs, specifications, and testing procedures

We recommend sourcing more women, nonbinary people, and people of color for this role.

Current Job: Electrical Engineer

View Sourcing Recommendations >

Detailed View >

Demographics	Current Job	Overall Company	Difference
Women and Nonbinary	20.00%	36.98%	-16.98%
Racial/Ethnic Minorities	40.00%	57.74%	-17.74%
Veterans	10.00%	5.660%	5.47%
Self-Identified Disability	10.00%	4.525%	4.34%

Current Job Breakdown

Overall Company Breakdown

View Current Applicants

Screen 2 : Sourcing recommendations, demographic data analysis, and job role description

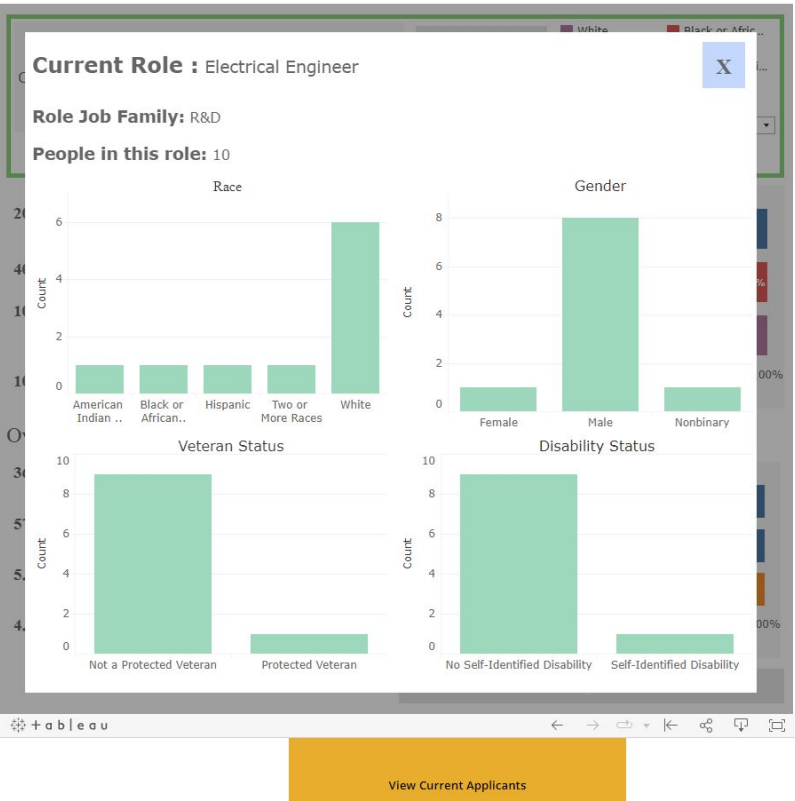
Final Deliverable: User Flow (Screens 3 + 4)

Electrical Engineer

Status: Open
Req ID:12301
Office:Bellevue

Job Summary: We are looking for a highly skilled Electrical Engineer to design, develop, and test electrical systems and equipment for our products. The successful candidate will be responsible for analyzing data and designing solutions that meet our clients' needs. The ideal candidate will have experience with electrical system design, analysis, and troubleshooting. They should be able to work independently and as part of a team to deliver quality products on time. Key Responsibilities:

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- Conduct research to stay up-to-date on new technologies and advancements in the field
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Screen 3: Detailed view of demographic makeup of a job position, and job role description

Electrical Engineer

Status: Open
Req ID:12301
Office:Bellevue

Job Summary: We are looking for a highly skilled Electrical Engineer to design, develop, and test electrical systems and equipment for our products. The successful candidate will be responsible for analyzing data and designing solutions that meet our clients' needs. The ideal candidate will have experience with electrical system design, analysis, and troubleshooting. They should be able to work independently and as part of a team to deliver quality products on time. Key Responsibilities:

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Organizations

Current Job: Electrical Engineer

Based on existing demographics for this role, we recommend reaching out to the following organizations.

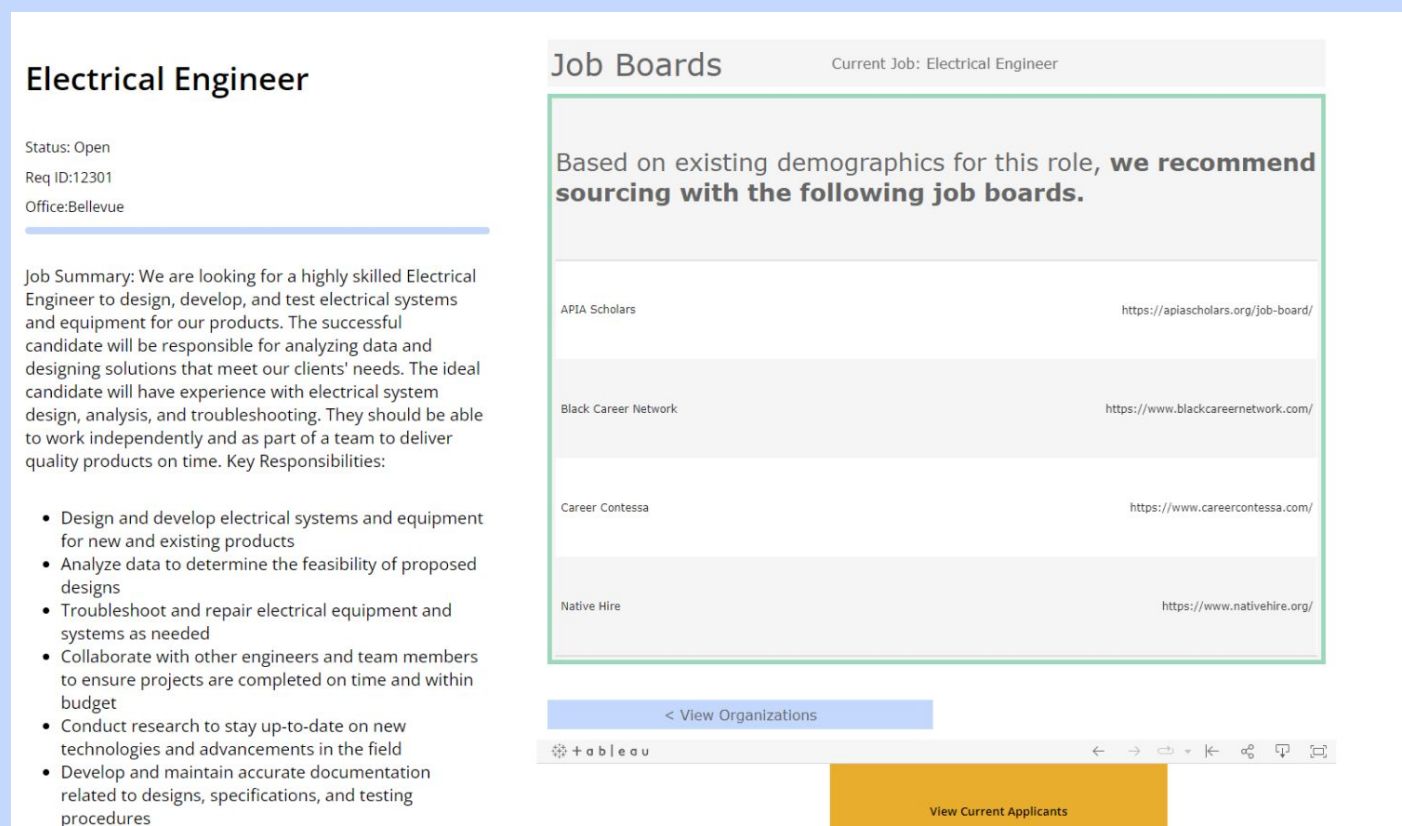
Advancing Indigenous People in STEM	The American Indian Science and Engineering Society (AISES) is a national nonprofit organization focused on substantially inc..	\$50,000 - \$100,000 / annually	https://www.aises.org/
National Society of Black Engineers	The National Society of Black Engineers (NSBE) is one of the largest student-governed organizations based in the United States. NSBE's missi..	\$40,000 - \$60,000 / annually	https://www.nsbe.org/
Society of Asian Scientists and Engineers	SASE is dedicated to the advancement of Asian heritage scientists and engineers in education and employment so that they ca..	N/A	https://www.saseconnect.org/
Society of Hispanic Professional Engineers	SHPE changes lives by empowering the Hispanic community to realize its fullest potential and to impact the world through S..	N/A	https://shpe.org/
Society of Women Engineers	SWE aims to empower women to achieve their full potential in careers as engineers and leaders; expand the image of the en..	N/A	www.swe.org

< View Demographics View Job Boards >

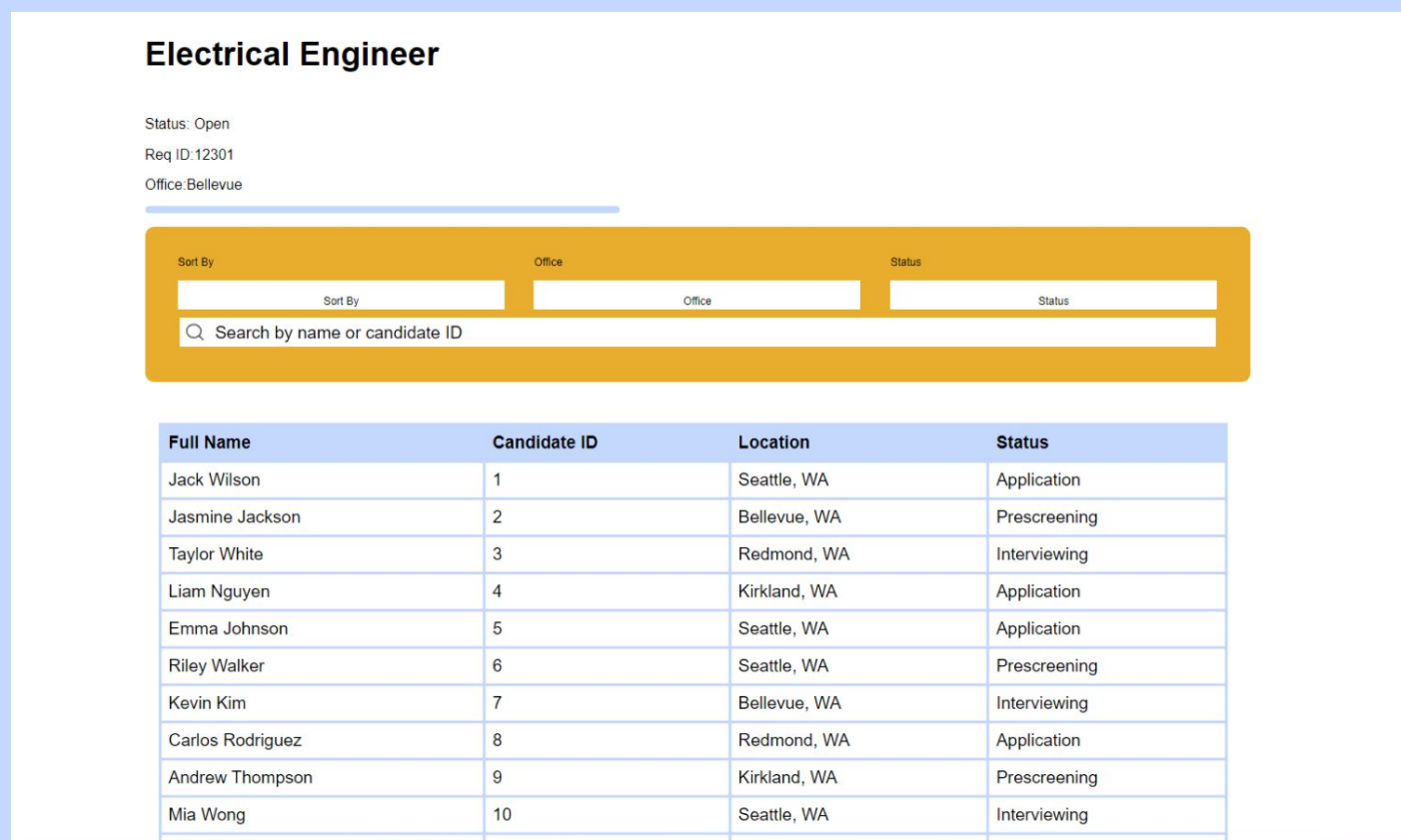
View Current Applicants

Screen 4: list of recommended partner organizations with a brief description and helpful information, and job role description

Final Deliverable: User Flow (Screens 5 + 6)



Screen 5: List of recommended job boards, and job role description



Screen 6: Dashboard of diverse qualified applicants

Electrical Engineer

Status: Open

Req ID:12301

Office:Bellevue

Sort By

Office

Status

Sort By

Office

Status

🔍 Search by name or candidate ID

Full Name	Candidate ID	Location	Status
Jack Wilson	1	Seattle, WA	Application
Jasmine Jackson	2	Bellevue, WA	Prescreening
Taylor White	3	Redmond, WA	Interviewing
Liam Nguyen	4	Kirkland, WA	Application
Emma Johnson	5	Seattle, WA	Application
Riley Walker	6	Seattle, WA	Prescreening
Kevin Kim	7	Bellevue, WA	Interviewing
Carlos Rodriguez	8	Redmond, WA	Application
Andrew Thompson	9	Kirkland, WA	Prescreening
Mia Wong	10	Seattle, WA	Interviewing

Final Reflection

The overall process of working on this project was enjoyable and a rewarding experience as we met class milestones, sponsor requirements, and team goals. Our sponsor was happy with our final deliverables and the feedback we received from our academic team, participants, and comments from our showcase.

The collaborative nature of the project helped us grow significantly as a team as we all found our role in the development and collaboration process. Meeting with our sponsor gave us the opportunity to implement our skills to the real world. From finding the direction of our project to learning how to use a new software, our sponsor's help, and the team support helped shape our project experience.



Future Work

Our prototype serves as an excellent proof-of-concept, and communicates our ideas well with others. There are some limitations that can be improved upon for future work. We envision this tool to be incorporated into a recruiter's existing applicant tracking system (ATS). Since recruiters use a wide variety of ATSs, we would need to design software that seamlessly integrates our idea into the existing workflow of the software. A plugin or extension that provides the recruiter with our visualizations would be helpful for recruiters. This is important because we do not want the recruiter to have to navigate to an additional tool to improve diversity.

More future work needs to be done with recruiters and DEI professionals. We still need to develop a better understanding of how companies decide whether to invest in a software to improve their DEI outcomes. This requires detailed conversations with DEI executives so we can better understand what they are looking for in potential tools.