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Apps For Good App Proposal: WorkSpace

Executive Summary

The process of finding and applying for minimum wage jobs can be intimidating for teenagers and first-time employees, especially when navigating the multitude of job opportunities, requirements, and limitations placed on high schoolers. The onset of the COVID-19 pandemic has only exacerbated the disparity between the need for workers versus employed persons in the workplace. Currently, the majority of teenagers acquire jobs in order to provide a source of income for their lifestyle or to forge connections within their field of interest and gain valuable work experience. However, a significant amount of jobs require prior experience within entry-level occupations as a prerequisite for applying. Most teenagers lack the resources to navigate this employment process since current apps and job aggregators target an older demographic. Entry-level, local minimum-wage jobs are under-marketed on current job search apps, such as Indeed or Monster. Oftentimes, finding a place to work for teens is reliant solely on word-of-mouth advertising, which creates a disparity in employment between individuals with and without prior knowledge of local job openings. Therefore, a need for an application to aggregate minimum-wage job opportunities for users based on their skills, interests, age, and time availability has emerged to aid first-time workers through the employment process. Our application aims to algorithmically match users to local job opportunities within a certain area from their location based on user inputted data. The app will also consolidate a database of minimum-wage job opportunities that could serve as a marketing tool for employers. The user-interface would be specifically designed for the target demographic by utilizing short, digestible video advertisements rather than lengthy written descriptions. These companies would be able to market their job openings on the app to teenagers looking for local opportunities.

Introduction

Problem Statement

For teenagers, finding a job can be daunting. Before acquiring any minimum-wage position, a teenager must first navigate the multitude of factors imbued within the search process; this undertaking requires research into the type of job, availability, and opportunities accessible to first-time workers. The onset of the COVID-19 pandemic has only exacerbated the number of limitations employers establish within their workplace, further complicating the job search process for young workers. During the peak of the pandemic, the teenage unemployment rate doubled from 9.1 percent to around 18.5 percent in July 2020, exhibiting the pandemic's inimical impact on teenage employment (Employment Among Youth, 2021). Figure 1 exhibits the continual declining trend in teenage employment over the past few decades (Hirschman & Voloshin, 2007). Teen employment dominates the leisure and hospitality industries, including food services; these markets were particularly affected by the pandemic, and many workplaces were forced to institute pandemic-related job closings due to lack of business. Despite these constraints, for many teenagers, locating a job and earning money remains a factor necessary to their circumstances (Employment Among Youth, 2021).

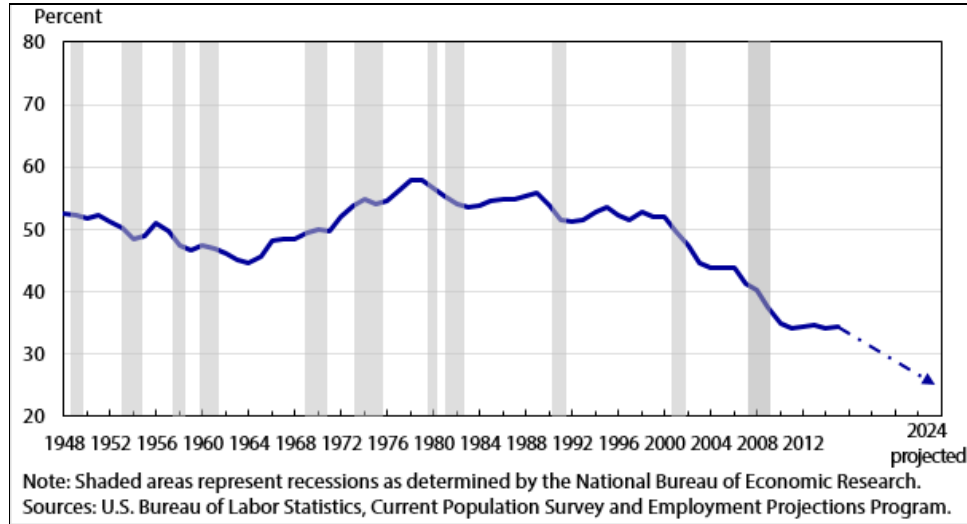


Figure 1: Labor force participation for teens ages 16-19 from 1948 to 2015.

As of 2022, teenagers only comprised 4 percent of the American workforce, a decreasing number in comparison to previous years. It is widely accepted that the majority of teenagers do not work to provide a means of income to support their families, but instead as a source of income for their lifestyle consumptions. Many students also hope to gain work experience in order to explore potential career pathways and develop connections with prospective mentors in their field (Hirschman & Voloshin, 2007). The number of jobs available to teenagers remains dependent on the job market and the willingness of employers to hire teenagers over other minimum wage job groups (Green & Staff, 2012). Table 1 organizes the percent occupation of 16 to 19 year olds in different employment sectors; as expected for 2021, food preparation and service occupations possessed the highest share of total teenage workers within this occupation. Approximately 30% of service employees are under the age of 21. Other occupations with significant young populations include the sales industry and administrative support positions. It is worth noting that the percent of teenagers partaking in extracurricular job commitment is 11 percent fewer than the 1989 teen employment rate (48%) during the summer (Hirschman & Voloshin, 2007). Many experts agree that if young workers continue to fail to leverage early

work experiences, then the future workplace has the capacity to be compromised due to inexperienced employees controlling the job market.

Occupation	Percent distribution		Percent age 16–19 in occupation
	Age 16+	Age 16–19	
Total	100%	100%	4.2%
Number of workers (in thousands)	141,730	5978	
Management, professional, and related occupations	35	6	0.7
Management, business, and financial operations occupations	14	1	0.3
Management occupations	10	1	0.3
Business and financial operations occupations	4	0	0.2
Professional and related occupations	20	5	1.0
Computer and mathematical occupations	2	0	0.5
Architecture and engineering occupations	2	0	0.5
Life, physical, and social science occupations	1	0	0.7
Community and social services occupations	2	0	0.8
Legal occupations	1	0	0.1
Education, training, and library occupations	6	2	1.4
Arts, design, entertainment, sports, and media occupations	2	2	3.4
Healthcare practitioner and technical occupations	5	1	0.5
Service occupations	16	38	9.8
Healthcare support occupations	2	2	3.2
Protective service occupations	2	2	3.4
Food preparation and serving related occupations	5	25	20.0
Building and grounds cleaning and maintenance occupations	4	4	4.9
Personal care and service occupations	3	6	7.6
Sales and office occupations	25	38	6.2
Sales and related occupations	12	24	8.6
Office and administrative support occupations	14	14	4.2
Natural resources, construction, and maintenance occupations	11	8	3.0
Farming, fishing, and forestry occupations	1	2	9.2
Construction and extraction occupations	6	5	3.0
Installation, maintenance, and repair occupations	4	2	2.0
Production, transportation, and material moving occupations	13	11	3.5
Production occupations	7	4	2.4
Transportation and material moving occupations	6	7	4.8

Table 1: Percent by occupation of total employed population and employed population age 16–19, and percent age 16–19 in each occupation. In our app targeting teenage job employment, sectors with a high majority of teen workers would be heavily advertised towards users.

Beyond the limiting specifications placed on the job market for teenagers by employers and the jobs themselves, many young workers also expressed difficulties acquiring a job that requires prior experiences; oftentimes, teenagers seeking specialized jobs for their field of interest need an entry-level job on their resumé as prior work experience. A survey conducted within the Massachusetts Academy of Math and Science found that many teenagers attributed their current unemployment to their busy high school schedules and inability to find

accommodating jobs opportunities. One student even expressed that “locating places” specifically “hiring teenagers” would “streamline” the process of finding a suitable job. A precondition for many high schoolers encapsulates a job willing to accommodate their unique schedule. Therefore, a need for resources to help isolate requisite entry-level jobs specifically tailored for minimum-wage workers has emerged within the employment process for teenagers.

Current applications marketed towards aggregating job opportunities for potential employees remain ill-designed for a teenage demographic. Entry-level positions are not as widely advertised and job matching to fit the particular schedule of a student is not accommodated. As a result, many teenagers feel intimidated by finding a job, especially when weighing the variety of considerations necessary to finding a well-suited occupation.

Audience

The primary audience of this app are any individuals seeking entry-level jobs (most likely teenagers, first-time workers, immigrant employees, etc). The app will aggregate entry-level jobs that do not require prior experience, which includes the majority of minimum-wage occupations in the food service, retail, and hospitality industries; these jobs usually compensate workers through an hourly pay system for each hour worked. More specifically, the app also is marketed towards individuals seeking local jobs within a set area around their residence. The app will aim to accommodate users with unique interests, capabilities, location, and time availability in order to algorithmically match them to specific job opportunities.

The principal goal for the app is the facilitation of job finding for users. First time job holders, such as teenagers, will be able to effectively navigate the job opportunities available to them through this app. Along with aggregating job opportunities for a database of entry-level

jobs, the app will also be able to algorithmically match the user to specific jobs based on their input filters (interests, hours, skills, age, locations, etc). All of the data will be visualized in a digestible and simplified format that engages the user through a TikTok/social media style user interface. Holistically, the features of this app aim to simplify the process and reduce the stress and intimidation associated with finding a job for the first time.

A secondary audience for this app are employers willing to market their job openings to teenagers and minimum-wage workers. The app will compose a database of local entry-level opportunities, primarily consisting of companies with job openings for teenagers. Companies will be able to market their openings to users on the app and claim knowledge on their information on the app. Therefore, a secondary goal for this app is to facilitate minimum-wage job advertising for local companies to first-time working users.

Competition

As job listings have begun to proliferate on the internet and evolve beyond “Help Wanted” signs placed on store windows, several applications have emerged to meet this demand. Specifically, LinkedIn, Indeed, and Monster have become leaders in the online hiring sector, enabling users to read reviews of businesses, build a profile and resumé, and interact with employers. While these websites are certainly effective for adults seeking salaried positions, they fall short in meeting the needs of teenagers.

Our app can improve on current competitors by aggregating jobs with varying experience levels. For example, on LinkedIn– a current employment-oriented online service– all users develop a profile including past experience, education, and any relevant skills they possess. The first aspect of an employee that many LinkedIn companies recognize is work experience. As we

work to build an app designed specifically for teenagers, we understand that many do not have any work experience. By developing partnerships with local businesses to build a comprehensive listing of jobs that contains jobs where experience is required and jobs where it is not, we can help erase barriers prohibiting teenagers from using online job search services. We plan to use our app to communicate these listings to teenagers who can then contact the employers based on the contact information embedded in the listing. This will remove experience-based barriers and accelerate the job search process, compared to our competitors.

Further, our app can improve upon competitors by adding hourly-based and minimum wage jobs. Indeed and Monster, two of our competitors, list very few jobs that are not salary based. Additionally, the jobs listed on Indeed that are hourly or close to minimum wage are not accessible to teenagers because they require working full time hours or a high school diploma. As we aim to tailor our application to teenagers, we will communicate these issues with employer partners, such that they can offer more jobs accommodating teenager's schedules increasing the applicant pool they draw from. Again, our partnership-based model for procuring job listings allows us to improve offerings for teenagers compared to competing sites. Specifically we see that we are better able to help teenagers find jobs that are not only accommodating of different experience levels but also capable of offering flexible schedules.

The overall user interface of our app also will aid our app in engaging a younger audience. Indeed, Monster, and LinkedIn are all standard job sites which require users to input personal information and past resumé's. Since our app only plans to store emails and phone numbers for contacting purposes, we are able to structure the app to be more accessible to teenagers who may not have created a resumé before or may have increased internet privacy concerns due to their age. Further, the TikTok social media user interface of the app will ensure

the visualization of digestible information for the user by emphasizing video-based, shorter adverts over lengthy advertisements.

In summary, we postulate that our app will supersede the competition by (1) partnering with local businesses to find jobs, (2) accommodate different experience levels, and (3) offer flexible schedules. Additionally, our mobile app design will (4) be more accessible to teenagers due to little personal information required and superior mobile integration compared to competitors.

Specifications

Features

The minimum viable product prioritizes an app displaying different job opportunities to the user based on their inputted filters such as location, ability, and interests. Of these filters, location will be prioritized as most crucial to finding potential jobs for the user. Additionally the minimum viable product will include a way for users to obtain more information about the advertising company via an external link to that company's website.

To provide these features for the user, the app will utilize a database of sample job listings from real local companies such as Target ©, Indian Head Farm, and Lavana Family Dental Groups. We also plan to do a web search to find already advertised listings, implementing those on our app, and allowing businesses to claim all of their listings (similar to the DoorDash app model). The user also has a responsibility to fill out a survey to have their own filters to narrow down the job search such as location, ability, certifications, and interests.

Feedback

To stay informed about the success of our app, there will be an occasional pop up asking if the user has gotten a job using our app. Also, during our interviews to partner with local companies, questions asking where the applicant heard of the company will be relayed to our team if the answer is via our app. Additionally contact information for our team will be included on our app if a user wants to reach out with suggestions or a review.

With the suggestions or concerns offered by users, a team meeting will be conducted to discuss the design or structural flaw and an action plan will be constructed to improve the app before the next design review.

Potential Future Additions

If given the time to add additional features to this application, our team would want to work towards developing a complete infrastructure that allows users to send companies their resumé and contact information directly from within the app. Communication between the employer and the potential employee could be achieved through an inbox to help organize the different communications of the user. Another potential feature would be to develop a resumé builder within the app for users to utilize to build their resumé, especially since many first-time job holders may not possess experience building important occupation documents. This could simply be used as a guide or even be sent to employers through the app. Finally, if given additional time, our team also seeks to partner with more local companies to integrate our app to their company website. This integration would provide accurate and relevant job openings to users through the websites of different companies themselves.

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