[Career Fair Recruiting App]

Team Aviato

Authors: Andy Chen, Rey Tang, Matthew Cheung, John Lau, Tim Liew

[Introduction]

Problem

In every career fair today, the process of recruiting interns and new hires is purely manual and laborious. This brings about delays in the entire process: receiving resumes, evaluating applicant information, and finally reaching out to candidates. The solution we propose is a mobile application that combines and captures resumes, notes, and other information from candidates and recruiters, parses that data, creates an online record, and saves it into the cloud. Essentially, the project will improve efficiency in the in- person recruiting process.

Background

The recruiting process at career fairs nowadays is unnecessarily manual and unintuitive. Keeping track of physical resumes and manually entering information is prone to plenty of mistakes - resumes can get lost, information can be incorrectly entered on accident. Our app aims to remediate this process. As technologists, it makes complete sense to use our skills to optimize the process of applying for internships and jobs. Our app will automate the application process by autofilling applicant information based on what is written on their resume. Additionally, this will get rid of the possibility of resumes getting lost, as they will all be digitally stored. Essentially, our project will optimize the way the recruiting process is handled nowadays, and make things easier for everyone.

Innovation and Core Technical Advances

So far, there are little to no solutions applied to solve this problem today. What we are proposing is essentially a software as a service solution, connected to a mobile application which captures the data and sends it back to be handled in the cloud. This not only provides the initial solution to the problem, but also allows the possibility of expansion to other platforms and portability.

Assumptions

Some assumptions we made before starting this project is that the format of resumes are all going to be very uniform. Similar enough for our OCR technology to accurately parse the information to at least 80% accuracy. Another assumption is that this application will be solely used by Workday so it will be tailored for their personal internship application.

Goals/Objectives

The biggest goal that our application hopes to achieve is to expedite and make more efficient the recruiting process at career fairs. The mobile (iOS) application should be able to easily parse pictures of resumes taken at career fairs and automatically fill out the company's internal application. The recruiter should be able to easily take a picture of the resume and continue the conversation with the applicant while our app quickly and accurately parses the information. The recruiter can then add any relevant notes about the applicant before finally submitting the application into the company database. This should all be a seamless process in which the recruiter should not be stopping and waiting for our app when talking to the applicant, that is the ultimate goal.

[System Architecture]

High Level Diagram

Backend

- Class for OCR (this will contain tesseract)
 - Parses information
 - Sends to profile class
- Class for Profile
 - Holds information parsed from resume to create a profile

Client side (mobile app)

- Initial menu view controller
- Camera view controller
 - Allows user to take picture of resume and send to server
- Profile view controller
 - Displays profile based on information parsed from resume



[Requirements]

User Stories

#	Title/Link	Description	Priority	Post Condition
1	Resume Image Database	As a recruiter, I want to take a photo of an applicant's resume so that I can upload it to my company's database	HIGH	Acceptance Test: Applicant's resume exists in company's database
2	Notetaking Functionality	As a recruiter, I want to be able to to attach notes on an applicant's resume so that I can remember information about them	HIGH	Acceptance Test: Notes exist in the database attached to the correct applicant.
3	Contact Information Parsing Functionality	As a recruiter, I want the app to automatically parse the contact information from the photo and fill in the correct fields in the application.	HIGH	Acceptance Test: Company application contact information filled out correctly
4	Education Experience Parsing Functionality	As a recruiter, I want the app to automatically parse the applicant's educational experience and fill in the correct fields on the application.	MEDIUM	Acceptance Test: Spell check parsed information to see if words were parsed correctly and information should exist in education section of database
5	Multi-Design Resume Parsing OCR Technology	As a recruiter, I want the app to be able to read the resume regardless of its format so I do not have to worry about handling different resumes	LOW	Acceptance Test: Check parsed data against of set of resumes of different designs (accuracy > 80%)
6	Resume Digitization	As a recruiter, I want the app to digitize the resume process so I will not keep track of physical copies of resumes.	MEDIUM	Acceptance Test: Digital resumes should be in the company database
7	Application Database Implementation	As a recruiter, I want to be able to save the application to our database so we can keep track of our resumes	HIGH	Acceptance Test: Resume images should be in company database and mapped to digital resume
8	Job and Experiences Parsing Functionality	As a recruiter, I want the app to automatically parse the applicant's job and experiences and fill in the correct fields on the application.	MEDIUM	Acceptance Test: Spell check parsed information to see if words were parsed correctly and information should exist in experiences section of database
9	Skills and Abilities Parsing Functionality	As a recruiter, I want the app to automatically parse the applicant's skills and abilities and fill in the correct fields on the application.	MEDIUM	Acceptance Test: Spell check parsed information to see if words were parsed correctly and information should exist in skills section of database
10	Application Database UI/Search Functionality	As a recruiter, I want to be able to access generated applications so I can contact applicants.	HIGH	Acceptance Test: Applicants' contacts exists in company database, which is linked to their resumes

[Appendices]

Technologies Employed

- Java Spring Framework
 - Application Framework to build web application for backend development
- Tesseract OCR
 - Character Recognition API for resume parsing
- Amazon Web Services EC2
 - Cloud web service for backend computation
- Xcode
 - iOS development for resume parsing mobile application
- Git
 - Version control system