

Proposal

ReCourse: a Web Application

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04/22/2020

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Project Overview

ReCourse is a job finder and matcher that allows prospective candidates to take courses created by their top-choice companies. Completing a company's courses opens a direct line of communication with recruiters at that company. While taking the courses, the prospective candidates are also connected to other candidates currently taking the course as well as a company representative tasked with answering questions about the course material and starting conversations with the candidates, allowing them to gain insight into the company.

Prospective candidates will be able to create a profile where they can add information such as a resume, certifications, LinkedIn profiles, etc. as well as badges earned by completing courses. They can also add information about the kind of company they are looking to join, such as location and field. Based on their skills and interests, our platform will connect candidates with potential internships that are the best fit for them and recommend courses offered by that company that may give applicants an advantage when applying for that particular program. After completing a course, the candidate will earn a badge that will allow them to connect with a recruiter at that company.

Recruiters will be able to update their company's profile, including adding upcoming positions and internship programs. They will also be able to add courses to the profile and suggest courses that they expect prospective candidates to complete for each position. The application then provides a list of potential candidates for the position to the recruiters, allowing them to connect with the ones they deem the best fit. The recruiter can be assured that these candidates are dedicated and skilled because they were willing to complete the recommended courses, making the job of the recruiter much easier. They can also post internship applications and conduct virtual interviews as well as job fairs and company tours.

Purpose

Due to the sudden outbreak of COVID-19 this year, universities and companies are forced to cancel career fairs, company tours, and whole internship programs. University students are having a hard time finding internships and full-time positions for the summer and beyond. There is an acute lack of opportunities to network with employees of the companies that students are looking at for internship and full-time opportunities in person. This web application will mitigate that problem by connecting candidates and recruiters looking for students with certain interests and skills online in an active and intellectual way. This service will give companies an easy way to assess prospective candidates' skills and passion for a particular job, while also giving the candidates hands-on experience with the company's industry and product, which will give candidates peace of mind that the opportunity is compatible with their career goals and plans.

ReCourse will have two distinct benefits for candidates: learning new technologies while under stay-at-home orders right from the companies that build, maintain, or use them and seeing all that work culminate in being able to contact the recruiters at that company.

This product gives companies a platform to share how they use technologies that will interest candidates and allows companies to be actively matched with dedicated candidates that not only have a passion for the company and match their preferences but also have a realistic idea of the skills needed to be successful at the company.

Objectives

- Allow university students to display their existing skill sets in an engaging way
- Help recruiters find great candidates quickly
- Form an algorithm that will be used to match the university student to a position/program
- Connect university students to companies looking for dedicated interns and employees
- Create channels of communication between the user and the recruiter
- Mitigate the problem of students losing internships due to COVID-19
- Create a valuable learning experience for students
- Create courses to grow in their career field and/or get into a certain position/program
- Host virtual fairs/tours/interviews

Project Plan

Week	Deliverable
0	Before the fellowship begins, the team will research technologies for building the app, such as web framework, authentication service, and database services. We will also have a plan for the back-end architecture and wireframes for the UI of the application.
1	<ul style="list-style-type: none">● Implement the front-end of the application including routes between pages● Design and implement UI for courses, including course forums
2	<ul style="list-style-type: none">● Setting up authentication and users for the application, including how to differentiate between candidates and companies and how companies can add and remove employees from their account.● Setting up how courses are saved (bundling video, audio, and written content in order to be very flexible)<ul style="list-style-type: none">○ Make sure to add a way for courses to give users badges upon completion
3	<ul style="list-style-type: none">● Set up company profiles, with a blog function, and find a way to put parts of company pages behind a wall if the user does not have the right badge● Set up candidate profile pages
4	<ul style="list-style-type: none">● Polish work from above● Add a “live” function for companies to plan virtual company visits● Build an application for recruiters and candidates to plan and conduct interviews and information sessions
5	<ul style="list-style-type: none">● Create a sample course to show as an example when companies wish to sign up for our service.● Add dummy data to the application for the purposes of the demo● Buy a domain to host the application and deploy
6	Each member of the team will set up a meeting with our own recruiters at our own internships in order to demo the product and ask for feedback. These people will hopefully be the first users of the product.

Appendix

Attached are the authors' resumes

Medha Aiyah

US Citizen

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OBJECTIVE: Seeking an internship during the Summer of 2020 in Computer Science related field. Flexible on location.

EDUCATION: The University of Texas at Dallas, Richardson, TX

B.S. in Computer Science

GPA: 3.701

Anticipated Graduation: May 2022

Folsom High School, Folsom, CA

High School degree with GPS Diploma

GPA: 4.03

Graduation: May 2018

WORK EXPERIENCE:

- **PowerSchool Group LLC** (cloud-based K-12 education system) – *Software Engineer Intern*, Folsom, CA – **Summer 2019**
 - Was part of a globally diverse agile scrum team as a technical contributor, dispositioned a total of 34 points.
 - Researched, analyzed and developed a proof of concept to enhance performance and efficiency of a core table in the database. Tested the results by computing the disk space reduction and other improvements.
 - Worked on a couple automation tickets and created page objects and test classes through Selenium
 - Presented my findings to department executives and recommended next steps to improve the scalability
- **Kumon Math and Reading Center** – *Tutor*, El Dorado Hills, California – **Oct 2016– July 2018**
 - Tutored elementary to high school students in English, Algebra, and Pre-Calculus.

COMPUTER SKILLS:

Programming Languages: **Intermediate:** C++, Java, and Microsoft SQL; **Beginner:** C#, C, and Python

Databases: **Intermediate:** OracleDB; **Beginner:** MongoDB

Automation: **Beginner:** Selenium

TECHNICAL PROJECTS:

- **Klo Kloset Organizer:** *HackUTD Project* – **February 2019** – An app that uses Algorithms API's, Node.JS, MongoDB, and React Native to identify clothing items and suggest outfits based on garments in one's closet.
- **Roll a Ball Game:** *Personal Project* – **April 2018** – Developed a 2D ball game using Unity and scripting in C#
- **Strength of a Password:** *Science Fair Project* - **March 2016** - Used Python to detect whether a password is secure.

COMMUNITY PROJECTS:

- **Girl Scouts STEM MakerSpace** – *Girl Scouts Central Heart of California Girl Task Force* – **March 2018-June 2019** – First makerspace in Sacramento utilized by ~2,000 girls. Led mobile STEM van as an outreach to remote school students. Promoted the makerspaces through TV interviews and local newspaper articles.
- **NCWIT Awards Ceremony (Dallas/ Forth Worth)** – *Awards Committee Chair* – **March 2019** – Partnered with Bank of America, AT&T, and the dean of UNT to plan and execute the event.
- **EMP-WR STEM Camp** – *Girl Scout Gold Award Community Service* - **July 2017** – Founder of a week-long camp to promote elementary and middle school girls in STEM

AWARDS:

NCWIT National Collegiate Finalist	Jan 2020
Intel's Andy Grove Scholarship	April 2019
UT Dallas Academic Excellence Scholarship	Aug 2018 – May 2022
Kristin Anne Chapman-Elbon Memorial Scholarship from Girl Scouts	June 2018 – May 2022
NCWIT National Honorable Mention	June 2018
California Scholarship Federation Seymour Northern Region Finalist	May 2018
Presidential Volunteer Service Award	May 2018

ACTIVITIES:

WEHack - UTD (All-women and non-binary hackathon); <i>Co-Founder/Co-Director</i>	Nov 2019 – present
Society of Women Engineers UTD; <i>Vice President & Events Chair Officer</i>	May 2019 – present
Girl Scouts, <i>Gold Award Recipient & Lifetime Member</i>	July 2017-present
NCWIT Awards Ceremony DFW Area – <i>Award Ceremony Coordinator</i>	January 2019 - present
Association in Computing Machinery UTD; <i>HackUTD Logistics Lead</i>	April 2019 – March 2020

Sahana Belatur

- <https://www.linkedin.com/in/sahana-belatur-4b437b189/>
 - <https://github.com/sahanabela>
 - sahanabela@gmail.com
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EDUCATION

University of Texas at Dallas – B.S Computer Science

(expected) May 2023

- Current coursework includes Comp. Science 2- Java, Discrete Mathematics II, Computer Architecture

SKILLS

Languages/ Frameworks: C++, Java, Dart, Flutter, HTML, CSS

Tools: Adobe Photoshop Certified

INTERNSHIP / WORK EXPERIENCE & ORGANIZATIONS

- **WEHacks Organizer- Development Committee** *Present*
 - ✓ Developing the website and registration process for UT Dallas' first all-female/non-binary hackathon using HTML, CSS, Docker, and Ruby
- **ACM Projects Manager** *Present*
 - ✓ Project manager for a team of novice software developers to jumpstart their college career by guiding them through building a mobile/web-app
- **ACM Projects Participant** *Sept. 2019 – December 2019*
 - ✓ Worked with a team to create a hybrid mobile application that generates hashtags based on a caption using Machine Learning models and Flutter, culminating in receiving first place
 - ✓ My focus was on front-end development
- **NASA / Stem Enhancement in Earth Science (SEES) Internship** *July 2018*
 - ✓ Working with NASA scientists, developed an interface using HTML, learned to navigate an astronaut photography database in order to aid in future mission training
- **'Physics Phun' app** *June – August 2019*
 - ✓ Created an app to make learning physics easier by linking helpful tutorials to specific chapters
- **Math Tutor, Brain Groomers, Cary NC** *2015-2017*
 - ✓ Tutored students in courses such as Algebra I/II, Precalculus, Geometry to improve test scores

EXTRACURRICULAR INVOLVEMENT

Tutoring

- **Parikrma School of Learning** (<https://parikrmahumanityfoundation.org/>):
 - Programming Workshop, July 2 - 6th 2018 – launched Parikrma's first C++ program for 9th-grade students; went over basic concepts in programming and C++
 - Science Workshops, June 20-24th 2016 & June 29 - July 3rd 2015 – science workshops for 8th graders
 - ✓ Conveyed concepts of electricity, magnetism, force, and electrochemistry by building working prototypes of a no-magnet motor, saltwater battery, wind-powered generator, hydraulic jack, etc.
- **Math Workshop for rising 7th graders** June 10-24th 2017 9AM-5PM
 - ✓ Raised \$420 to donate to Parikrma and Let Girls Learn by conducting a math counts workshop

HONORS/AWARDS & INVOLVEMENT

- 2019 NCWIT award winner for Dallas-Fort Worth Aspirations in Computing Award
- Recipient of AXA Achievement Scholarship and UT Dallas Academic Excellence Scholarship
- Association for Computing Machinery (ACM), Society of Women Engineers, UX Design Club
- AP Scholar with Distinction and AP Capstone Diploma

Caitlin Tibbetts

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EDUCATION

University of Texas at Dallas – Richardson, TX

B.S., Computer Science

Member of the Collegium V Honors Program

Recipient of the Academic Excellence Scholarship

Aug 2018 - May 2021

GPA: 3.592

RELEVANT COURSES: C/C++ Programming in a Unix Environment, Data Structures and Algorithms

TECHNICAL SKILLS: Cryptography, AWS cloud computing, Linux, and Android mobile development, C++, HTML, CSS, Javascript

PROFESSIONAL EXPERIENCE

Amazon – Seattle, WA

Amazon Future Engineers Intern - Cryptography Tools

May - Aug 2019

- Worked with the full-time SDEs to build, maintain, and document the AWS Encryption SDK
- Built a true random number generator based on the entropy of a lava lamp
- Mentored by the Python developer on the team, which taught me a lot about Python
- Learned about the inner workings of a professional office environment, including Agile software processes

PROJECTS

Seattle Nativity School SMS Announcement System

July 2019

Alexa Skill

- Built Alexa skill for teachers to send SMS to a parent through his/her Alexa
- Received People's Choice Award – Amazon Future Engineers Hackathon

Crypto Dragon

May - Aug 2019

Python-built API

- Collaborated with team of Amazon interns to build a true random number generator based on the entropy of physical processes, such as fluid dynamics and avalanche noise, using Raspberry Pi and Python

Perfect Playlist – ACM Projects

Aug - Nov 2018

Android application

- Built an application that uses natural language processing to build a music playlist for the user full of novel songs tailored to their situation and apparent mood
- Utilized Android for app and Houndify API for Natural Language Processing

EXTRACURRICULAR EXPERIENCE

Alpha Gamma Delta - Epsilon Psi Chapter – Richardson, TX

Vice President of Academic Excellence

Dec 2019 - Present

Director of Academic Enrichment

Dec 2018 - Dec 2019

Marguerite Shepard Awards for Academic Excellence

Nov 2018, April 2019, Nov 2019

Association of Computing Machinery – Richardson, TX

HackUTD Marketing Coordinator

May 2019 - Present

ACM Projects Project Manager

Dec 2018 - Dec 2019

SKILLS

Proficient in French