

SW Engineering CSC 648/848-04

Team 04

Leiyi Gao: Team Leader
Justin Mao: Backend Leader
Yinyin Wu: Scrum Master
Michael Han: Git Master
Nicholas Hamada: Frontend Leader

Milestone 1

10/03/2022

Project Name: RateMyResume

Revision History:

10/03/2022 - 1st draft

1. Executive Summary

Resume represents a candidate's qualification and makes each applicant unique. Everyone who wants to stand out among the other candidates must market themselves through their resumes, which could indicate each individual's professional strength and it leads applicants to the right match of the jobs. Therefore, applicants should create a well-written resume to grab the attention from recruiters and future employers.

There are many resume templates available from online sources such as Google-Doc and Word-Doc, however, what makes the applicants stand out among all other job seekers are various qualifications required by the employers and the current market demand. Thus, the market trend determines the specific needs for every industry, and it keeps updating as the market trend changes. Most people already acquired the core skills and certain experience before, but they couldn't make their resume competent enough to catch recruiters' eyes due to lack of knowledge of current market conditions or the applicant just simply got lost without any direction of the current market trend. After all, applicants miss the perfect job position which could be their life career because of a poorly written resume, although applicants already maintained the proper skills and experience.

RateMyResume not only helps job seekers to improve how to write their resume with existing templates but also keeps our users to get updated with current market trends since the App could build a massive community to keep everyone up-to-date. Our App is inspired by the concept of Social-Media, which brings people together with information about the current market and people can post and comment on each resume to provide the proper guidance. The motivation of RateMyResume is to assist each candidate to create the best resume according to the current market requirement, so that each applicant could fit into the right position for the current market. By using RateMyResume, each user can explore the new requirement or qualification that the other candidate obtained but you don't, so that the user could make improvements. Our users have the ability to comment on certain resumes and ask any related questions that may help both sides. The uniqueness of our App is that people can look up other people's resumes in the same industry and build the ideal resume correspondingly with the updated current market trend. On top of this, we take cyber security very seriously. Each candidate cannot view other candidates' personal information unless the viewers are from the government regulation agency or Companies' recruiter. Furthermore, RateMyResume has the potential value for the hiring firms in the market, in order to fill in the role with the right candidate, they have the ability to view any qualified resume and contact the ideal applicant. Therefore, with our model, we could establish the perfect supply and demand chain among the HR industry.

2. Personas and User Stories

Jen Shing (ID: 0001) - Recent CS grad



Priority: High

Persona: Jen received her bachelor's degree in CS a few months ago but hasn't had any luck on landing her first professional job. Jen noticed that her applications mostly went unnoticed. Jen has spent a lot of time curating her professional resume, but she knows there is always room for improvement. Jen would like to get some feedback on her resume and to know if there are additional steps that she can take to make her resume more noticeable to recruiters.

Hobbies: first-person shooter games, YouTube videos, road trips

John Smith (ID: 0002) - CS sophomore



Priority: Medium

Persona: John is a CS sophomore who aspires to become a front-end developer. John is unsure of which elective classes to take in order to maximize his chance in landing the role that he wants. Moreover, John wants to start looking for his first internship next semester but hasn't written a professional resume yet. He feels stressed since he doesn't know where to start, especially since this is his first time job-hunting.

Hobbies: First-person shooter games, surfing

Jun Singh (ID: 0003) - Financial advisor transitioning to FinTech



Priority: Low

Persona: Jun had previously worked as a financial advisor and is currently looking to transition his career into the fintech sector. Jun knows how to create good resumes from his years of experience working in finance, however, as a career transitioner, Jun is unsure on how to best leverage their previous career to add values to his portfolio. Jun also would like to get some information on the relevant skills and technology that he should learn to ease his career transition.

Hobbies: PlayStation 5 games, bar hopping

3. Data Definitions

- Entity 1: User
- Items: Each user will have a unique account ID which will be linked to any resumes they post and linked to an email provided by the user which is stored in the mongo db database.
- Usage: authentication, post and comments identification
- Privilege(s): basic user
- Attributes: name, username, creation date, user id, email
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- Entity 2: Post
- Items: Each user can post their resume, and the data is also stored in the MongoDB Database. The resume is also linked with that user, as well as user's authentication such as user name, user email etc. Each user can comment on other users' resume, it could be suggestions, error checking or give out any specific current market information associated with the resume. All this information is also stored in the MongoDB database.
- Usage: Contains resume, get feedback from other users through comments, templates that can be used by other users
- Attributes: Post id, post date, post author, uploaded resume, comments, post rating

4. Initial List of Functional Requirements

- Creating an account
 - Requirement ID: 0001
 - Description: Users should be able to create an account so they can share their resumes and comment on other resumes.
 - Priority: High
 - User stories: All three personas (John Smith, Jen Shing, and Jun Singh) will use this feature.
- Login
 - Requirement ID: 0002
 - Description: Users should be able to log in to their account after their account has been created.
 - Priority: High
 - User stories: All three personas will use this feature.
- Search
 - Requirement ID: 0003
 - Description: Users should be able to search for resumes based on tags or categories.
 - Priority: Low
 - User stories: All three personas will use this feature.
- Posting/uploading resumes
 - Requirement ID: 0004
 - Description: Users should be able to post or upload their resumes to the app. They should also be able to post their resumes anonymously.
 - Priority: High
 - User stories: All three personas will use this feature.
- Commenting
 - Requirement ID: 0005
 - Description: Users should be able to comment on each other's resumes to give feedback.
 - Priority: High
 - User stories: All three personas will use this feature.
- Likes/upvoting
 - Requirement ID: 0006
 - Description: Users should be able to like/upvote other people's resumes.
 - Priority: Medium
 - User stories: All three personas will use this feature.

5. List of Non-Functional Requirements

1. Application will be compatible and usable on desktop and mobile browsers including chrome and Mozilla Firefox.
2. Users should experience no significant lag when navigating through the application. Application should provide response to user's request under 500ms under normal traffic load.
3. Data will be stored in mongodb running in Docker within the GCE instance.
4. Users should not be able to access other users' private data such as login information.
5. Application should be easy to use. Users should be able to intuitively navigate through the app and use various app functionality.
6. Changes to the master branch in the github repo will be limited to pull requests to ensure codes are well maintained and working at all times.
7. After installation of additional dependencies, snapshots of instance storage will be kept to allow new instances to be spun up quickly when the current instance goes down.

6. Competitive Analysis

Features	Our planned features	TopResume	KickResume
Resume feedback from real people	✓ Feedback from community	X AI-based	X AI-based
Anonymity	✓	✓	✓
Community-based	✓	X	X
Allow users to see other top-rated resumes	✓	X	X

Table 1. Features comparison against competitors in the market

With our product, we aim to create a friendly community based environment where people can rate, like, and comment on others' resumes. Our goal is to help improve users' resumes under other people's reviews, enhancing the chance of getting shortlisted for jobs. Users will also be able to view other top-rated resumes similar to your job search and give them a like if they found the information helpful. Posts with more likes will appear on the homepage as recommended resumes. The community is anonymous, only displaying the username. No personal information should be posted on the resume being reviewed nor in personal settings. Within the community, we are also creating a positive cycle for new users and users who got help

before. Previous graduates are more likely to return to help review others' resumes if they received help before. As of now, there aren't many similar products in the market. As shown in Table 2, current competitors are mostly AI-based with no real human-eyes involved in the resume reviewing process.

7. High-Level System Requirements

List of the technologies used in our software stack:

Server Host:	Google Cloud Platform
Operating System:	Ubuntu 22.04 Server
Database:	MongoDB (running in docker)
Web Server:	Google Cloud Platform
Front-End:	React
Server-Side Language:	Java
Web Application Framework :	Spark
Additional Technologies:	Docker
IDE:	IntelliJ and VS code

8. Team

Team members and roles are listed in Table 2. The team will meet at least twice a week on Mondays and Fridays as a whole team to discuss our current progress or blockers. Michael will lead teach-back sessions on GCP during our meetings, and Leiyi will talk about MongoDB. Each member will also learn technologies that they're interested in their own time. We will have multiple small meetings according to the members' roles tentatively. (For example: back-end members, front-end members, etc.)

Study Plan

For frontend, Yinyin will Implement home page and a about page using React with responsive navbar, state, hooks, React-router by 10/10, API calls to backend, displaying request & response from backend and database within the next two weeks before 10/17. Finish intro course for React testing tool Jest before the end of Oct, also dabble on Redux React in building user interfaces. Nicholas will review React tutorials and YouTube videos that may be useful for the front-end by 10/17, including videos on React hooks, routing, and API calls to backend. By the end of October, he will also review videos on displaying responses to backend.

On the backend side, Justin will try to familiarize himself with MongoDB and Spark by watching and reading tutorials by 10/10. Leiyi will manage the GCP account for the team and keep studying the concept of deploying and managing containerized applications in Docker by 10/10. Michael will learn how to set up DNS with Cloudflare for the application, explore additional Github and GCP resources that might be useful such as continuous integration and deployment of container images by 10/10. Michael will also review React hooks, routers and concepts surrounding document object models (DOM) by 10/17.

Name	Role
Leiyi Gao	Team Leader
Justin Mao	Backend Lead
Michael Han	Github Master
Nicholas Hamada	Frontend Lead
Yinyin Wu	Scrum Master

Table 2. Team members' names and roles

9. Checklist

- Team found a time slot to meet outside of the class: **DONE**
- Scrum Master shares meeting minutes with everyone after each meeting: **DONE**
- Github master chosen: **DONE**
- Everyone sets up their local development environment from the team's git repo: **DONE**
- Team decided and agreed together on using the listed SW tools and deployment server: **DONE**
- Team ready and able to use the chosen back/front-end frameworks: **DONE**
- For each technology (front/back-end/DB/cloud) , the team decides who will lead the study of each technology and what will be output of the (feasibility) study within one month.: **DONE**
- Team lead ensured that all team members read the final M1 and agree/understand it before submission: **DONE**