

# **Skill Set Based Recommender System for Jobs and Internships**

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**Abstract:** This paper is an attempt to manage our job/internship-searching techniques in a more efficient and manageable way. It helps the employer to post vacant jobs and gets recruitments and the seeker to search for the jobs.

**Keywords:** Employer, Seeker, Skills, Jobs, Internships, Recommendations.

## **I. INTRODUCTION**

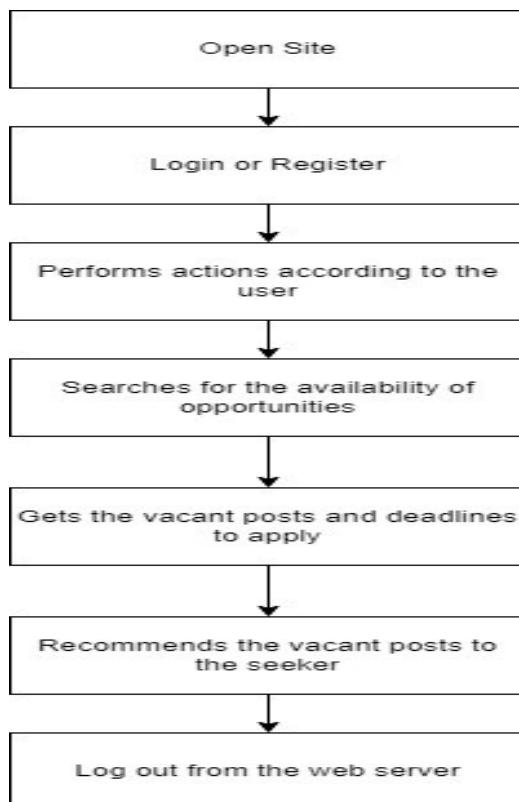
This paper is an attempt to manage our job-searching techniques in a more efficient and manageable way. Sometimes we can't remember where we saw some job opportunities or internship availabilities and we feel very difficult to recollect all the information we ought to remember. Also, we can't handle the immense overflow of all the availabilities without any filters and sorting. For this problem, we need a solution that everyone can manage their availabilities as per their requirements. So, we decided to find an easier way to get rid of this problem. So, our application attempts to free the user from as much as possible the burden of manual searching and to keep track of the update's opportunities. Instead of keeping a diary or a log of the availabilities, this web page enables the user to not just keep the track of available opportunities but also allows the user to identify the areas where he can easily avail of an opportunity. It is quite understandable because there will be no confusion about filtering and sorting as it is directly embedded.

## **II. PROPOSED SYSTEM**

Instead of keeping a diary or a log of the available opportunities, this system enables the user to not just access the available job opportunities but also allows the user to identify the internship availabilities and also areas of their interest where he wants to work in and also his expertise he wants to continue with. Here, users will interact with a decent user interface and it is very user friendly. The companies can post the vacancies in their organizations. The seeker can look all the possible vacancies that are posted by the companies or organizations. This makes the seekers find the job/internship based on their skills, which will help them build their career.

### **3.1 Architecture of Proposed System**

First the user has to select their respective registration or login. If the user is an employer he has to register as an employer, if he's already a user he has to login as employer. If the user is a seeker, then he is registered if he is first time on the website or he can login as the seeker with the credentials he gave during the registration process. After logging into the website, the employer has to fill the details for recruitment like the role that is vacant in their organization, skills required for that role and application link. If it is a seeker then the details filled by the employers are displayed, so that he can choose the company of his interest and the role his skills can suit. Finally, the seeker who is looking for the job is shown all the possible jobs he can apply for.



**Figure 2.1:** Architecture of proposed system

### III. TECHNOLOGIES USED

#### A. HTML

We used HTML [1] to create the web page and we used the forms, hyperlinks. We used forms to take the data in registration from both the seeker and the employer. The login pages, vacancy details form organization are designed using the forms of HTML. We used HTML tables to display the details filled by the employer to the seeker after logging in and hyperlinks to redirect the seeker to the company page to apply for the role mentioned vacant [4].

#### B. CSS

The CSS language used to describe how Web pages are presented, including their colours, design, and fonts, is called CSS. It enabled us to modify the presentation for many sorts of screens. It was simpler for us to maintain websites, distribute style sheets across pages, and modify pages for various contexts due to the separation of HTML and CSS. The separation of structure and display is what we meant by this separation.

#### C. JavaScript

The scripting language JavaScript [2] made it possible for us to manipulate multimedia, animate graphics, and pretty much anything else. It is incredible what we were able to accomplish just a few lines of JavaScript code to validate the password and the confirm password in the registration form of both seeker and employer — we probably involved the JavaScript. JavaScript is a scripting or programming language that allowed us to implement complex features on web pages.

#### D. PHP

PHP is used to link the databases with the HTML page we created. The tables used to store the registration details and company vacancy details are linked to our webpage with the help of PHP. PHP is a server-side scripting language, which we used to design the dynamic web applications with MYSQL database.

#### E. MYSQL

We used Xampp software [3] to work with the MYSQL. MYSQL is used to create the databases and create tables to store the details of the registration details of both the employer (Company) and the seeker. This helps to check if the authenticated person is logging into the web page or not. The tables we create also store the company details like vacant positions. This helps to display the details to the seeker which can help him choose the organization which has the requirements that match the seeker's skills.

#### IV. RESULTS

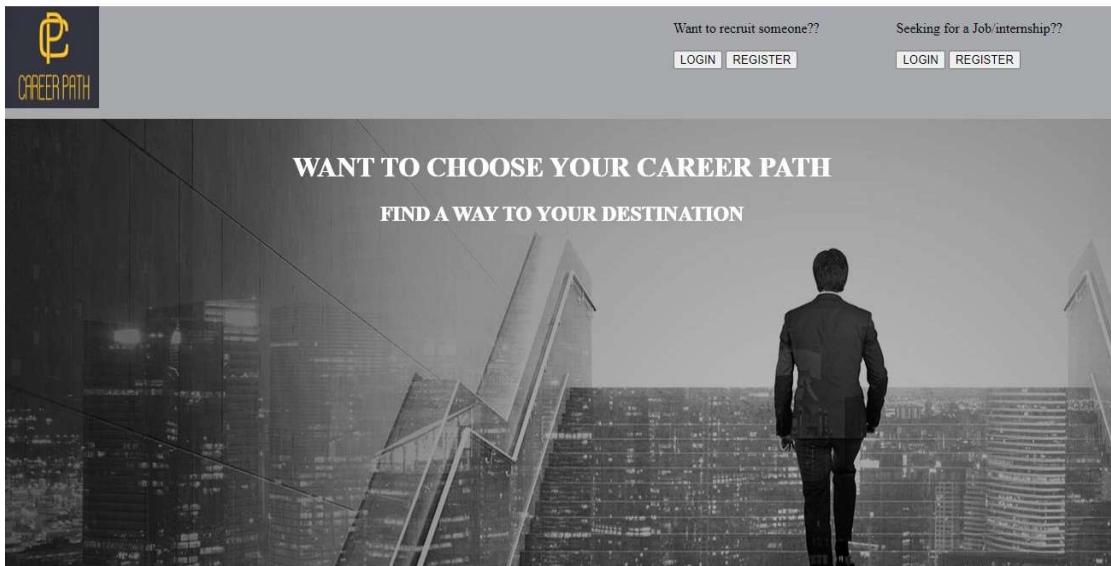


Fig: 4.1 Main Page with Employer and Seeker Registration & Login options.

The fig .1 displays the main menu and the initial 2 options available for registration and get access to the insights available in the website.

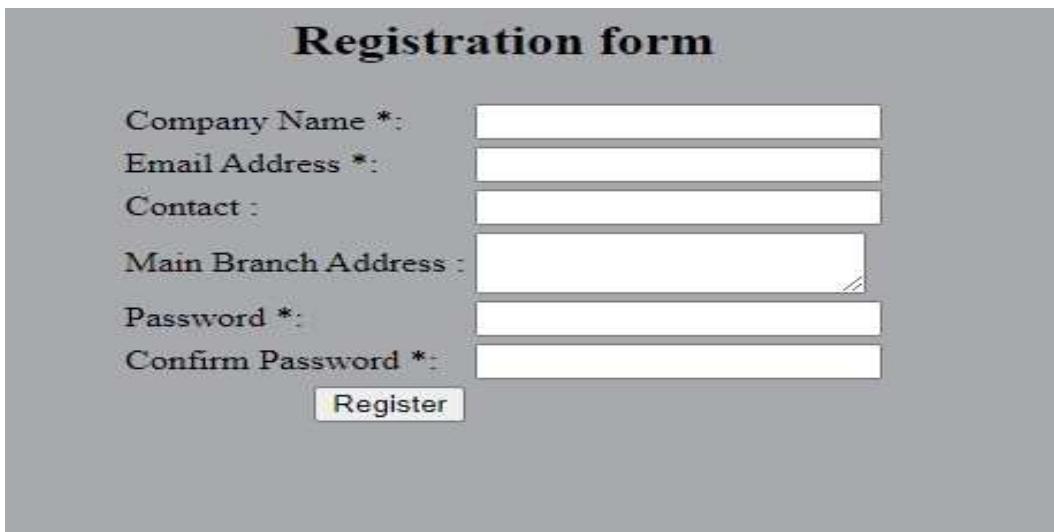

 A screenshot of the 'Registration form' for employers. The form includes fields for Company Name\*, Email Address\*, Contact, Main Branch Address, Password\*, and Confirm Password\*. There is also a 'Register' button at the bottom.

Fig: 4.2 Registration form of Employer.

Fig 4.2 is the snapshot of the details the employer from an organization need to provide while registering into our website.

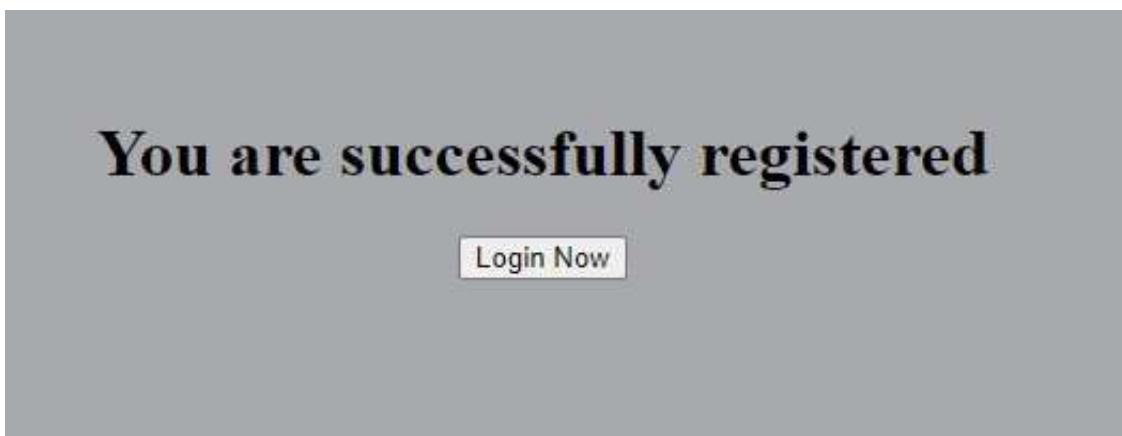


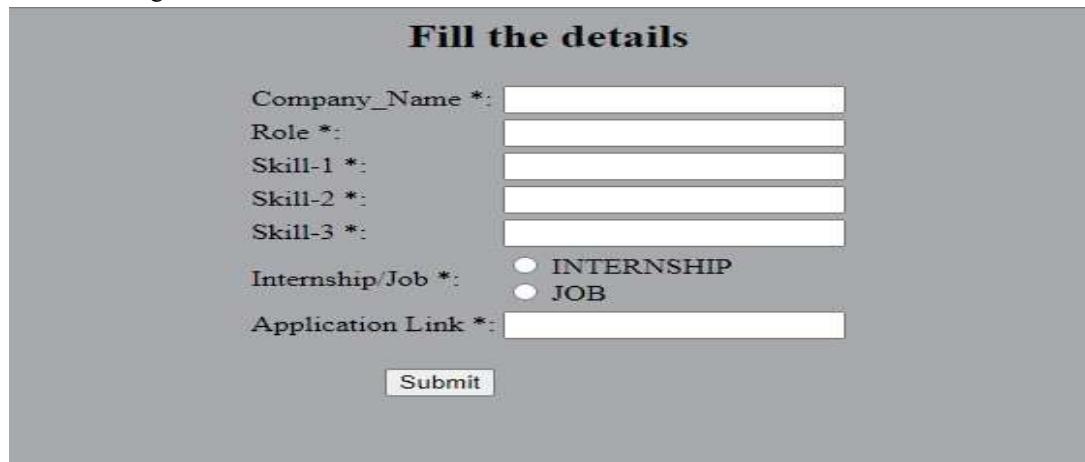
Fig: 4.3 Secondary stage after Registration.

Fig 4.3 shows the secondary stage that is presented after the complete registration by the employer which leads to the next page of login credentials. This page is displayed when the details entered are valid.



Fig: 4.4 Login Page of Employer

The Fig4.4 is login page for employer representing a company, the employer needs to provide his respective login details and once verified he logs in.



**Fill the details**

Company_Name *:	<input type="text"/>
Role *:	<input type="text"/>
Skill-1 *:	<input type="text"/>
Skill-2 *:	<input type="text"/>
Skill-3 *:	<input type="text"/>
Internship/Job *:	<input type="radio"/> INTERNSHIP <input type="radio"/> JOB
Application Link *:	<input type="text"/>
<b>Submit</b>	

Fig: 4.5 The respective job/internship requirements.

The figure 4.5 describes the required fields necessary for the job or internship vacancy the employer is updating or posting about.

### Registration form

Name *:	<input type="text"/>
Email Address *:	<input type="text"/>
Field *:	<input type="text"/>
User Name *:	<input type="text"/>
Phone *:	<input type="text"/>
Password *:	<input type="text"/>
Confirm Password *:	<input type="text"/>
<input type="button" value="Register"/>	

Fig: 4.6 Registration Form of Seeker

The figure 4.6 displays all the required mandatory fields need to be filled or provided by the seeker to register.

### Username:

### Password:

Fig: 4.7 Login Form of Seeker

The figure 4.7 describes the seeker login page, he must provide valid login credentials for complete access into the website.

#### Available Vacancies:

Company_Name	Role	Skill1	Skill2	Skill3	Type	Application Link
Amazon	SDE	OOPs	DataStructures	HTML	JOB	<a href="#">CLICK HERE</a>
IBM	AASE	Database	Full Stack Development	DataStructures	INTERNSHIP	<a href="#">CLICK HERE</a>
IBM	ASE	HTML	SQL	JAVA	INTERNSHIP	<a href="#">CLICK HERE</a>
Wipro	Software Engineer	Ruby	Java	AWS	JOB	<a href="#">CLICK HERE</a>
Wipro	Software Engineer	CAD	CAE	Engineering Drawing	INTERNSHIP	<a href="#">CLICK HERE</a>
Amazon	Principal Software Engineer	Problem solving skills	Exceptional communication skills	service oriented software development	JOB	<a href="#">CLICK HERE</a>
Wipro	Sr. Software Engineer	Programming languages	Quality management standards	Problem Solving Skills	JOB	<a href="#">CLICK HERE</a>
Mphasis	Software Developer	Java	DS	Full Stack Development	JOB	<a href="#">CLICK HERE</a>

Fig: 4.8 Final Page of Recommendation for seeker

The above screenshot is the overall list of available jobs or internships the seeker can apply to with the application links also available.

**V. SCOPE OF FUTURE USE**

We propose a site where the freshers as well as experienced employees of any field can find their career. This site will make it easier for people to get an idea for which organizations they can apply for. Based on the technology the seeker is interested, the companies that they are looking for can be chosen by the seeker. In this way it will help a person to find their way to successful career with a clear guidance. This can be extended by taking the skills from the seeker and displaying the companies that match the skills of the seeker.

**VI. CONCLUSION**

We have developed a website for both jobs and internships in the same site without multiple collisions and confusions. Freshers, Students and Professionals anyone can access the site depending on their skills and requirements. Even a new start-up company can register as employer and recruit their new employees.

**REFERENCES**

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