International Journal of Scientific Research in Engineering and Management (IJSREM)
Volume: 08 Issue: 10 | Oct - 2024 SJIF Rating: 8.448 ISSN: 2582-3930

A Survey on Placify: Seamless Recruitment Experiences Powered by MERN

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ABSTRACT

The current recruitment landscape presents significant challenges, as students often struggle to find positions aligned with their skills, while recruiter face difficulties in identifying suitable candidates. Manual systems used in campus placements exacerbate these issues, leading to inefficiencies such as delayed communication, mismanagement of student data and increased error rates. To mitigate these problems, a robust Job Portal system stack are proposed using MERN, offering automated solutions that streamline the recruitment process. These systems employ advanced web technologies to manage tasks like student registration, job notifications, upcoming companies and real-time communication between T&P, recruiter and students thus improving operational efficiency and accuracy.

Keywords : Job Portal, MERN Stack, T&P, On-Campus, Recruitment

1. INTRODUCTION

In the early days, students depend on traditional methods for job searching such as newspapers, bulletin boards, company visit and attending job fairs. These approaches were time-consuming and limited student's access to job postings. Recruiters also faced challenges in reaching a wide pool of candidates, making the hiring process inefficient. However, with the rise of technology, on-campus job portals have transformed how students interact with recruiters. These platforms serve as centralized hubs where students, training and placement officers (T&P) and recruiters can communicate effectively.

On-campus job portals allow students to create profiles, apply for a wide range of jobs and upload their resumes expanding their access to employment opportunities. For recruiters, these portals provide a simple process for posting job openings and identifying qualified candidates, eliminating the need for manual job postings and the hiring process. Recruiters can target specific skills required, making it easier to find the best candidates for their roles.

As the campus hiring season approaches, the workload for T&P cells at educational institutions increases. When managed manually, this work can lead to inefficiencies as T&P officers face challenges such as insufficient information about students, less data security and complications from manual data entries. The vast database of student information including academic and personal details requires careful management. They plays a crucial role where he/she is responsible to bridge the gap between student and company. They collaborate with companies to understand their hiring requirements. Also provides guide to students regarding on resume building, how to prepare for interview and many more.

To deal these challenges, the proposed Job Portal aims to improve the traditional placement system through automation. The portal enables quick and easy access to placement related activities, ensuring that student information remains secure. It is designed in a way allowing T&P to announce job opportunities and manage the student profiles efficiently. Students can communicate easily with the T&P cell and prepare for interviews through resources.

The portal offer features such as application tracking, notifications about upcoming recruitment and scheduling interview. Moreover, the portal provides about student alumni records which can inspire students. This kind of information can inspire students to get involved with resources and manage their career.

The propose web application streamlines campus recruitment by managing student information, job postings, and reducing manual work for placement officers. Students can easily apply for jobs, while it provide course recommendations. The system simplifies the recruitment process and is expected to be widely adopted by institutions over time. We will use the MERN stack (MongoDB, Express.js, React.js, Node.js) to develop the project. MongoDB will handle data storage, Express.js will manage server-side operations, React.js will create a dynamic frontend, and Node.js will provide a scalable backend environment.

Overall, the on-campus job portal creates a supportive system that not only helps students succeed but also meets recruiter's needs in a competitive job market.

1.1 MOTIVATION

The job portal was made to help college students apply for jobs online and keep track of their applications more easily. Currently, many institutions conduct on-campus recruitment through platforms like Telegram, WhatsApp or email groups, which presents several challenges. For instance, students often make errors while entering key contact information like email IDs or phone numbers, leading to issues. Ineligible students may also register which complicates the process. Moreover, constant messages from different companies, registration links and multiple lists of shortlisted candidates clutter the group chats, making it hard for students to navigate.

There are also privacy concerns, as the contact details of registered students are sometimes shared publicly, which breaches confidentiality. Additionally, there is no real-time tracking of placement statistics to help students and staff see how many are getting placed each week. Currently, students have to fill out the forms again and again, which cause mistakes and leads to time consuming. The job portal aims to solve these problems by offering a centralized, efficient system for both students and the placement cell.

2. LITERATURE

Paper No.	Technology Used	Advantages	Disadvantages
[1]	Angular, React, Java, Spring Boot	- Easy job search for users - Web and mobile access - Cost and Time efficient	-Time-consuming matching process - Stressful for tech-averse users
[2]	MERN Stack	- Centralized access to job listings - User profiles for managing applications - Admin access for job posting maintenance	- Information overload

[3]	Python (Beautiful Soup), SMTP	- Quick, centralized access to job listings - Email notifications - Job-saving options	-Complexities of web scraping -Scalability concerns
[4]	MERN Stack	- User-friendly interface - Advanced job search options	- Privacy concerns - Inaccurate job matches
[5]	MEAN Stack	- Automation of manual processes -Improved communication - Performance analysis for job predictions	-Lacks performance tracker for mock tests - Manual filtering required
[6]	Machine Learning	- Automates recruitment tasks - Improved efficiency and data accuracy	- Excludes less tech-savvy students -Significant investment required
[7]	Python, SQL	- Simplifies scheduling -Enhanced job placements -Pre-interaction features	- Reliance on technology for operation

Literature Survey Table

2.1 RELATED WORK

The author highlights the problem statement how unemployed people struggle to find jobs that fit their skills, while companies have a hard time finding qualified candidates. The Job Portal is created to help solve this issue by offering a web application and an Android app for job searching on both computers and phones. It allows job seekers to register, update their skills and search for job openings easily. The portal uses Angular and React for the website and Java with Spring Boot for the backend, making it secure and easy to use. While it helps job seekers and employers connect, the process can still take a lot of time and can be stressful, especially for those who aren't very familiar with technology. Overall, the Job Portal aims to improve the job market by matching job seekers with suitable jobs and helping companies find the right talent[1].

The job portal was created to address the competitive job market, providing university students with effective tools to secure placements by bridging the gap between them and potential employers. Existing placement systems are often inefficient, leading to missed opportunities; thus, a centralized platform is essential for easy access to job listings and applications. Key features of the portal include user profiles for managing job applications, detailed job listings with crucial information and admin access for maintaining current postings. Built using the MERN stack, the portal ensures robust and scalable functionality. While it offers wider reach and centralized information, limitations such as information overload and reliance on internet access may pose challenges for students. Potential technical issues could disrupt access and reduced personal interactions with recruiters might hinder relationship building. Overall, the portal aims to enhance placement rates and streamline the recruitment process for students[2].

The demand for a quicker and more streamlined job search experience has inspired the creation of a job portal that uses web scraping to gather listings from different sources, helping users save both time and effort. The portal

includes features such as email notifications, job-saving options and the potential for automated interview scheduling, enhancing the user experience. By using Beautiful Soup in Python for web scraping and SMTP for email notifications, the platform successfully centralizes job opportunities. However, challenges include understanding the complexities of web scraping, scalability concerns and reliance on external job portals, which may change over time. Despite some challenges, the platform offers valuable benefits by making the job search easier and giving users quick, centralized access to job listings[3].

Job portals aim to make job searching easier and recruitment faster by connecting job seekers with employers. They are designed to be user-friendly, offering advanced search options for filtering jobs based on criteria like location and skills. However, there is a lack of proper studies on how satisfied users are with these platforms. The study found users were generally happy with the variety of jobs and features offered, but also identified issues like privacy concerns and inaccurate job matches. Built using the MERN stack, the portal shows potential, though improvements are needed to address data privacy and better match users with relevant jobs[4].

The motivation behind developing the Training & Placement (T&P) portal is to address challenges in traditional placement systems, such as manual processes and poor communication, which make it difficult for students to secure jobs efficiently. The problem lies in the inefficiency of current manual systems that cause delays and errors in managing student placements. The system automates tasks like student registration, job notifications and communication, while also analysing performance data to predict suitable job opportunities. Built using the MEAN stack, the platform is scalable and effective, although it lacks a performance tracker for mock tests and requires manual filtering for certain tasks. The results show that the T&P portal has improved efficiency and communication between students and placement officers, though it relies heavily on technology and may have an initial learning curve for users[5].

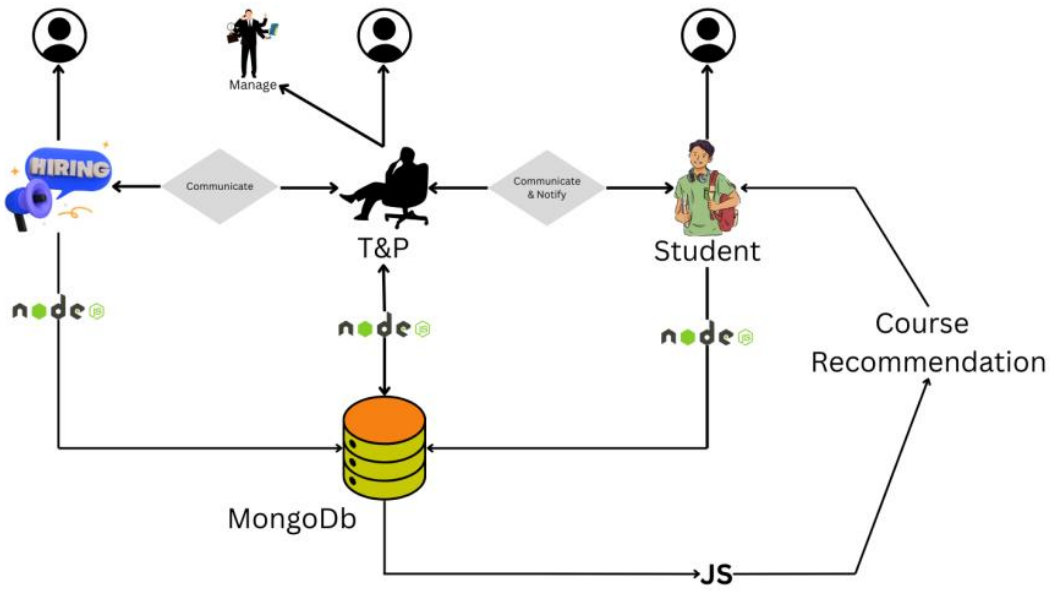
The Online Campus Recruitment System simplifies the recruitment process by automating tasks like job postings, interview scheduling and results management, making it easier for students and companies. It uses machine learning to evaluate candidates and allows students to access tests online. This improves efficiency and data accuracy but has some limitations, like excluding less tech-savvy students and requiring significant investment. It may also overlook qualified candidates who don't perform well in tests, but overall, it enhances communication and reduces manual work[6].

This project seeks to make the recruitment process smoother and more efficient for college students and companies by moving away from traditional methods that can be slow and often lead to mistakes The system includes features like separate logins for students, companies and admins, along with profile management and admin-controlled data accuracy. It also allows for pre-interaction between students and companies, reducing interview anxiety. Developed using Python and SQL, it simplifies scheduling and enhances job placements. However, users may face reliance of technology may cause disruptions during technical failures or system downtimes. Despite this, it offers improved efficiency, data security and better opportunities for students[7].

The online campus placement system improves efficiency and accessibility for both students and recruiters. It allows for electronic submission of CVs, online screening and remote interviews. The study identified 158 key factors that influence the model, highlighting increased flexibility and reduced logistical needs. However, the system also faces challenges like technical issues, high costs and students being less prepared for traditional interviews. Overall, while it offers many advantages, some drawbacks, such as system errors and added stress, remain significant[8].

The study highlights how online job portals have made job searching faster and more efficient, especially in a competitive market. They offer features like quick job applications, filters and resume builders. However, issues like too many job listings and poor quality posts can affect job seekers. Employees hired through these portals perform well, but there are concerns like fake job listings and a lack of representation for certain roles. Despite these challenges, the portals increase access to opportunities and speed up the hiring process[9].

2.2 SYSTEM ARCHITECTURE



The paper shows how the MERN stack works by combining MongoDB, Express.js and Node.js to create an easy-to-use platform. React is used to build the user interface providing a responsive design for smooth interactions between students, recruiters and T&P officer. The layout includes features like login forms , upcoming companies, alumni record and job listings that update in real time making it easy for users to stay engaged. Good state management ensures that user inputs are saved and carried across different parts of the application.

On the server side used Node.js and Express.js to build a backend that simplifies communication with the database. The Express framework handles HTTP requests allowing users to post jobs, register students and manage applications easily. This paper integrates middleware to ensure user authentication, manage errors and log activities for system reliability.

In MongoDB, data is organized into collections for student profiles, job postings and applications ensuring easy access. This system improves user experience which makes data management easier and enhances the system's scalability and security for smooth campus recruitment management.

2.3 EXPECTED RESULTS

This paper highlights the use of the MERN (MongoDB, Express.js, React, Node.js) technology stack for building an efficient On-Campus Job Portal. The system leverages MongoDB for database management ensuring that all student profiles, job postings and placement notifications are stored securely and can be easily accessed when needed. Express.js and Node.js form the server-side framework, enabling smooth data flow between the database and the client interface, while React powers the dynamic front-end interface. This combination of technologies provides a seamless user experience allowing students, T&P officer and recruiters to interact with the system effectively. The MERN stack's ability to handle high-volume data interactions and its real-time updates make it ideal for managing complex placement operations, reducing manual workload and streamlining communication across all users.

The platform allows students to input and modify their personal details, qualifications and skills. It also offers recommendations for courses based on the student's profile, enhancing their employability. For recruiters, the system makes it easy to post, edit or remove job listings, ensuring they can quickly find suitable candidates. For the T&P department, the portal offers a comprehensive view of all student profiles, making it easy to monitor and manage student details. Additionally, the use of MERN technology allows the system to send notifications to students about upcoming recruitment drives, reducing the need for paper-based work and ensuring a more organized and efficient placement process.

3. CONCLUSION

This paper aims to present a comprehensive overview of an on-campus Job Portal system designed to address the challenges encountered by students, T&P and recruiters during the recruitment process and to bridge the gap between them. The system seeks to streamline key activities such as student registration, job notifications, application tracking. By offering a centralized and automated platform, the Job Portal simplifies the process of connecting students with job opportunities while enabling recruiters to manage candidate selection more efficiently. The system also enhances communication between students, T&P and recruiters providing a more organized and transparent recruitment experience. Additionally, the portal's ability to maintain records of alumni and upcoming companies further strengthens its role in facilitating continuous engagement between students. This paper explores how the Job Portal contributes to improving the overall efficiency of the recruitment process and highlights potential areas for future enhancements.

REFERENCES

[1] G Ramarao , P Anjaniuma , E Supriya , Md Abdulrahman , Ch Chakradhar , K Karthik.: Job Portal, International Journal of Advanced Research in Science, Communication and Technology (IJARSCT) Volume 4, Issue 2, May 2024.

[2] Niraj Srivastava, Manashvi Tripathi, Dr. Vipin Rai.: The Development of a Job Portal to Facilitate In-campus Placement, 2023 5th International Conference on Advances in Computing, Communication Control and Networking (ICAC3N) ISBN: 979-8-3503-3086-1/23/$31.00©2023 IEEE 1549.

[3] Shubham B. Gulik, Akash R. Gharat, Jayesh L. Choudhary, Sujata Kolhe.: Scraping of Job Portal, International Journal of Advance Research, Ideas and Innovations in Technology, ISSN: 2454-132X Impact Factor: 6.078 (Volume 7, Issue 3 - V7I3-1748).

[4] Dr. N. Swapna Goud, B. Siva Krounchidhar Sarma, B. Ashrith Nivyadin, C. Shasank.: Job Portal: MERN Stack Web Application for Job Seekers and Recruiters, International Journal of Multidisciplinary Research in Science, Engineering, Technology & Management (IJMRSETM),ISSN: 2395-7639,Volume 11, Issue 4, April 2024 .

[5] Dr. Gauri Dhopavkar, Toshit Kale, Rajat Gaikwad, Saurabh Chavan, Gaurang Kumar, Himanshu Shendare, Harsh Akre.: An Integrated Web Application for Training and Placement, ISSN: 2094-0343 2326-9865.

[6] Dr. Mithilesh Kumar Dubey , Barkha Narang.: Online Campus Recruitment System-A Machine Learning Model, International Journal on Recent and Innovation Trends in Computing and Communication ISSN: 2321-8169 Volume: 11 Issue: 10s.

[7] Aishwarya Baile, Pratik Sawarkar, Pratik Wankhede, Rajat Manwatkar, Raman Barsagade, Prof. Preeti Karmore.: Implementation of Training and Placement System, International Journal of Scientific Research in Science and Technology Print ISSN: 2395-6011 | Online ISSN: 2395-602X (www.ijsrst.com) doi : https://doi.org/10.32628/IJSRST.

[8] Varun Shenoy & P. S. Aithal.: ABCD Analysis of On-line Campus Placement Model, IRA-International Journal of Management & Social Sciences ISSN 2455-2267; Vol.05, Issue 02 (2016) Pg. no. 227-244 Institute of Research Advances http://research-advances.org/index.php/RAJMSS.

[9] Ahjaz Ahmed.: A Review on the Impact of Online Job Portals on Employee Performance, International Journal of Research, e-ISSN: 2348-6848 p-ISSN: 2348-795X Vol. 10 Issue 08.