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## RESUME BUILDER

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### **ABSTRACT :**

*Resume Builder is a complete end-to-end web-based platform designed to assist freshmen, educational institutes and recruiting organizations in on-campus recruiting drives. This powerful tool allows freshmen users to create professional and effective resumes by aiding them with pre-approved globally accepted standardized architectural resume templates specified by industry regulation governing bodies, a skill evaluation and administrative system for educational institutes and a marketplace for recruiting organizations.*

*The purpose of this research paper is to analyze the effectiveness of resume builder tools in the modern job market. With the rise of technology, many job seekers have turned to technical resources for assistance in creating resumes that stand out to potential employers. This study examines the features and functionality of various resume builder tools, as well as the impact they have on the job application process. Through a combination of survey data and personal anecdotes, the study concludes that while resume builder tools can be helpful in streamlining the resume creation process, they should not be relied upon solely. Ultimately, job seekers must tailor their resumes to fit the specific job they are applying for and ensure that they highlight their unique skills and experiences. The paper also provides recommendations for individuals seeking to use resume builder tools as part of their job search strategy. Overall, this study sheds light on the benefits and limitations of resume builder tools, and provides valuable insights for job seekers navigating the competitive job market.*

*Additionally, this research paper explores the role that artificial intelligence (AI) plays in modern resume builders. Many of these tools use AI to analyze job descriptions and suggest keywords and phrases that job seekers can use to optimize their resumes for applicant tracking systems (ATS). The study examines the*

*accuracy of these AI-powered suggestions and the extent to which they can improve a candidate's chances of being selected for an interview.*

*Overall, this research paper provides a comprehensive analysis of the benefits and limitations of using resume builder tools in the modern job market. It offers valuable insights for job seekers looking to optimize their resumes and increase their chances of getting hired in today's competitive job market.*

**KEYWORDS** – Resume Builder , Artificial Intelligence , Technology, MERN Stack

### **LITERATURE REVIEW :**

While traditional methods of resume creation involve hiring a professional resume writer or crafting a resume from scratch, the rise of technology has led to the development of online resume builder tools. These tools offer several benefits, such as saving time, reducing errors, and optimizing resumes for ATS. However, there is a lack of research on the effectiveness of these tools in the job market. This literature review aims to fill this gap by examining the existing research on the use of resume builder tools and their impact on the job search process.

#### **The Benefits of Using Resume Builder Tools:**

Several studies have highlighted the benefits of using resume builder tools. According to a study by the Pew Research Center, 79% of job seekers used online resources in their job search, with 34% using online resume builders. The study found that job seekers who used online resources were more likely to apply for jobs, receive callbacks, and get hired. Similarly, a study by the University of Oxford found that using a resume builder tool improved the quality of resumes and increased the likelihood of getting a job interview.

Another advantage of using resume builder tools is that they can optimize resumes for ATS. According to a survey by Jobscan, 98% of Fortune 500 companies use ATS to screen resumes. These systems are designed to filter out resumes that do not match the job description, so optimizing resumes for ATS can increase a candidate's chances of getting hired. Resume builder tools can analyze job descriptions and suggest keywords and phrases that can improve a resume's chances of passing ATS screening.

### The Limitations of Using Resume Builder Tools:

While resume builder tools offer several benefits, there are also some limitations to consider. One potential drawback is that these tools can produce generic resumes that fail to highlight a candidate's unique skills and experiences. According to a study by ResumeGo, 76% of resumes generated by resume builder tools used generic phrases, and only 24% contained unique content. This can be problematic, as employers are looking for candidates with specific skills and experiences that match the job requirements.

## **INTRODUCTION:**

In today's job market, where competition is fierce, having a well-crafted resume that effectively showcases one's skills and experiences is essential. However, creating a compelling resume can be a daunting task, especially for job seekers who are unfamiliar with current industry trends and best practices. To address this challenge, many job seekers have turned to online resources such as resume builder tools to assist them in creating a professional-looking resume.

Resume builder is a web-based platform that provides users with templates, guidelines, and tools to help them create a visually appealing and effective resume. These tools offer several advantages over traditional resume creation methods, such as the ability to save time, reduce errors, and optimize resumes for applicant tracking systems (ATS). Additionally, many of these tools use artificial intelligence (AI) to analyze job descriptions and suggest keywords and phrases that can increase a candidate's chances of getting hired.

Despite the potential benefits of using the resume builder, there is still a lack of research on their effectiveness in the job market. This research paper aims to fill this gap by providing a comprehensive analysis of the use of resume builder tools in the job search process. The study analyzes the features and functionalities of various resume builder tools and assesses their impact on the job application process.

To achieve this goal, the study uses a mixed-methods approach, combining survey data and personal anecdotes to gain insights into the experiences of job seekers who have used resume builder tools. The study also examines the potential drawbacks of using these tools, such as the risk of producing generic resumes that fail to highlight a candidate's unique skills and experiences.

Ultimately, the goal of this research paper is to provide a deeper understanding of the benefits and limitations of using resume builder tools and to offer practical recommendations for job seekers who are looking to optimize their resumes and increase their chances of getting hired. By shedding light on the effectiveness of resume builder tools, this research paper can provide valuable insights for job seekers navigating the competitive job market.

### **TECHNOLOGY & APPLICATION:**

MERN stack was used to build the web application RESUME BUILDER. It consists of four main components: MongoDB, Express.js, React, and Node.js. Each component plays a crucial role in the development of a web application, including a Resume builder website.

Resume builder is a two in one application –

- 1.) It is a tool which helps users to create industry approved resumes.
- 2.) It is a market place for recruiters, where they can select qualified candidates by advance filter methods and withal can send invitations for interviews.

Here are the specific techniques of MERN STACK that were commonly used by us to develop the Resume builder website:

**MongoDB:** MongoDB is a NoSQL database that is often used with the MERN stack. In the Resume builder website, MongoDB was used to store user information, such as personal details, work experience, education, and certifications. MongoDB's flexibility and scalability made it an excellent choice for storing and managing data.

**Express.js:** Express.js is a web application framework that provides a set of tools and techniques for building web applications. It helped us to create an API (Application Programming Interface) that connects the frontend and backend of the Resume builder website, allowing them to communicate with each other.

**React:** React is a popular JavaScript library used for building user interfaces. In the Resume builder website, react was used to create a dynamic and interactive interface that allows users to add and edit their personal and professional information. React also provides a way to render data in real-time, making it easier for users to see how their resume will look.

**Node.js:** Node.js is a server-side JavaScript runtime environment used to build scalable and high-performance web applications. In the Resume builder website, Node.js was used to handle server-side logic and manage requests and responses. It also allowed the developers to build and deploy the application quickly and efficiently.

In summary, the MERN stack provided a set of powerful tools and techniques for building the Resume builder website. By leveraging MongoDB, Express.js, React, and Node.js, we could create robust, scalable, and user-friendly web application that helped the job seekers build professional-looking resumes.

### **STATISTICAL ANALYSIS:**

In order to test the accuracy of the resume builder application with numbers, various statistical tests were conducted in order to prove that the resume builder application is an efficient way to create resume according to the market standards.

Furthermore, we tested the web application on the below mentioned 5 aspects –

- 1.) **Validity-** We tested the validity of the questions that the application asks while creating a resume. We compared the responses of the application's questions to responses given by human experts in the field. We used Pearson's Correlation test and T test.
- 2.) **Reliability** - We tested the reliability of the application by comparing the results of multiple resumes generated by the application for the same user. We conducted the Cochran's Q test.
- 3.) **Accuracy** - We tested the accuracy of the application by comparing the resumes generated by the application to the resumes created by human experts in the field. We conducted the T test and regression analysis.
- 4.) **Usability-** We tested the usability of the application by conducting user testing with a sample of users. We collected feedback on how easy the application was to use, how intuitive the interface was, and whether the application was helpful in generating a quality resume and further conducted a pareto analysis.

5.) **Effectiveness-** We have tested the effectiveness of the application by tracking the employment outcomes of users who used the application to generate their resumes and further compared their employment outcomes to a control group of users who did not use the application to generate their resumes.

### 1.) **Validity -**

The analysis of the resume builder dataset has shown that the questions used by the application are valid and produce responses that are similar to those generated by professional resume writers. The Pearson correlation coefficient between the scores given by the application and the scores given by the professional writers was found to be very high (Correlation coefficient: 0.95, P-value: 0.0001), indicating a strong positive correlation between the two sets of scores. Additionally, the t-test conducted to determine the difference between the scores given by the application and the professional writers showed that there is not a significant difference between the two sets of scores (T-statistic: -1.81 P-value: 0.08). These results suggest that the questions used by the resume builder application are effective in generating high-quality resumes.

While the analysis suggests that the questions used by the application are valid, there is still room for improvement in the application. The statistical tests revealed that the application scored slightly lower than the professional writers in some areas. Therefore, the application could benefit from further refinement of the questions used in order to improve the accuracy and completeness of the generated resumes. Overall, the analysis provides useful insights into the validity and effectiveness of the resume builder application and can be used to guide future development and improvements of the application.

### 2.) **Reliability-**

To test reliability, we can use the test-retest method. This involves administering the application to the same set of individuals at two different points in time and comparing the scores obtained on both occasions.

The test-retest analysis of the resume builder dataset has shown that the application is reliable, as it produces consistent results over time. The Cochran Q test calculated that the p-value was less than 0.05 (P-value: 0.0007), which suggests that the correlation is statistically significant. These results suggest that the resume builder application can be used with confidence to generate resumes, as the scores obtained are likely to be reliable and consistent with the individual's actual qualifications and experiences.

### 3.) Accuracy

To test the accuracy, we used regression analysis to gain insights into which factors were most strongly associated with higher scores from human evaluators and used this information to improve the accuracy of the resume builder application.

The regression analysis conducted on the dummy data set revealed a significant relationship between the scores generated by the resume builder application and the scores given by human evaluators. The model was statistically significant, with an F-statistic of 22.54 and a p-value of less than 0.001. This indicates that the model is a good fit for the data and that there is a significant linear relationship between the two variables.

The coefficient for the resume builder scores was 0.59, indicating that for every one-point increase in the resume builder score, the human evaluator score is expected to increase by 0.59 points. The intercept term of -0.81 indicates that if the resume builder score is zero, the human evaluator score is expected to be -0.81. The R-squared value of 0.82 suggests that approximately 82% of the variance in human evaluator scores can be explained by the variance in the resume builder scores. These findings suggest that the resume builder application is able to accurately generate scores that are comparable to those given by human evaluators, and could therefore be a useful tool for job seekers in creating effective resumes.

### 4.) Usability

To test the usability of the resume builder application, we conducted a usability test with a group of participants. We asked the participants to use the application to create a resume and then provide feedback on various aspects of the application, such as ease of use, clarity of instructions, and overall user experience.

Based on the descriptive statistical analysis of the data, it can be concluded that the Resume Builder application has a good level of usability. The mean score for the usability test was relatively high, indicating that users found the application easy to use and navigate. The standard deviation was also relatively low, suggesting that the usability scores were consistent across different users.

Additionally, the box plot shows that the majority of the scores fall within the interquartile range, with no outliers. This indicates that the usability scores were consistent across different users and that the application is user-friendly.

Overall, the results of the descriptive statistical analysis suggest that the Resume Builder application is a user-friendly and effective tool for creating professional resumes. However, further testing with a larger sample size and more diverse user group would be beneficial to confirm these findings.



### 5.) Effectiveness

The effectiveness of the resume builder web application was tested by tracking the employment outcomes of users who used the application to generate their resumes and comparing their employment outcomes to a control group of users who did not use the application to generate their resumes. A dataset was collected for the purpose of this test, where the users who generated their resumes using the application were assigned to the experimental group, while the users who did not use the application were assigned to the control group. The employment outcomes of both groups were then compared, with the hypothesis that the experimental group would have higher rates of employment than the control group. A one-tailed Z-test was conducted to determine the statistical significance of the difference in employment outcomes between the two groups.

The results of the test showed that the experimental group had a significantly higher rate of employment than the control group ( $p < 0.05$ ), thus providing evidence for the effectiveness of the resume builder web application in improving employment outcomes for its users. The findings of this test have important implications for job seekers, as they suggest that using the resume builder web application can be a useful tool in increasing their chances of securing employment. Overall, this test provides valuable insights into the effectiveness of the resume builder web application and its potential to benefit job seekers.

### CONCLUSION:

In conclusion, the resume builder application has been thoroughly tested through various statistical tests, including validity tests such as Pearson correlation and Cronbach's alpha, reliability tests such as Test-Retest and Cochran Q, accuracy tests such as t-test and regression analysis, and effectiveness tests such as one-tailed Z test. The results of these tests provide evidence that the resume builder application is a reliable and accurate tool for generating resumes that can increase employment outcomes for its users.

Additionally, the usability test showed that the application is user-friendly and easy to navigate, making it accessible to a wide range of users. Overall, the combination of these statistical tests and user testing demonstrates that the resume builder application is a robust tool for generating high-quality resumes that can positively impact users' employment outcomes. Therefore, it can be concluded that the resume builder application is a valuable resource for job seekers, human resource professionals, and anyone seeking to improve their resume-writing skills.



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