AUTOMATED RESUME BUILDING USING AI

Kavva Anirudh Reddy, Mrs. Vinayaka Prashanthi

[1]B.tech Student, Department Of Electronics and Computer Engineering, J.B Institute of Engineering and Technology

[2]Assistant Professor, Department Of Electronics and Computer Engineering, J.B Institute of Engineering and Technology

Abstract: In today's world, individuals strive to present themselves in a polished manner in order to lead a high-quality lifestyle. Moving from one recruiter to another is a common practice when seeking new opportunities. During an interview, the first impression is crucial, and a professionally crafted resume is the essential tool to secure your dream job. The resume builder website project is an online platform that allows users to create professional resumes quickly and easily. This project introduces an innovative solution for resume creation by leveraging the capabilities of Artificial Intelligence (AI).

The website provides a user-friendly interface that guides users through the resume-building process step by step. The project aims to simplify the process of creating a resume for job seekers, whether they are fresh graduates or experienced professionals. This website offers a user-friendly and flexible means of designing a desired resume, eliminating the need for individuals to think about appropriate formats or content to include in their resume.

This website provides a variety of templates for users to choose from and create, modify, and edit their resumes. Users can preview their resumes as they create them and make changes as necessary before downloading the final version in different file formats, including PDF and WORD.

Keywords: Resume, Templates, Recruiter, User, Hiring Manager

INTRODUCTION

In today's fast-paced world, where people are busy and looking for ways to live life to the fullest, it's important to make a good first impression, especially when it comes to applying for jobs. A well-crafted resume is often the first interaction between a job seeker and a potential employer. It can be the difference between being selected for an interview or being eliminated from the hiring process.

To make things easier for job seekers, an online resume builder website has been created. It provides popular resume formats and a better way to showcase one's skills and qualifications to potential employers. Rather than attaching a resume to every email, job seekers can simply include a URL that links to their online resume. This not only saves time but also allows employers to view the resume in a more organized and professional manner.

The main objective of the resume builder is to manage the details of the job seeker, including their skills and qualifications, and to provide a user-friendly way of creating a professional-looking resume. The system requires minimum human intervention, with individuals filling out a form and receiving their resume in a short

span of time in either PDF or image format. The project aims to reduce the manual work involved in creating a resume and to provide an easy and efficient way for job seekers to showcase their skills and experience.

LITERATURE SURVEY

In recent years, there has been continuing trend among youths to pursue higher education in their zeal to become highly qualified and skilled. The new technologies, specially, an internet has made a huge impact on knowledge management and information dissemination in education. In many organizations including universities, the web portal is knowledge - management system is among most popular topics. Universities have been at the forefront of website development, which further led to the development of the web portals to provide more useful links to information resources. Portals have different applications or services to solve various problems. One of the aims of web portals is to allow information access and sharing over the Internet. For e.g., in a university, the new students in the faculty need access to information resources to select different courses and to decide on the different areas and majors available, in the faculty.

This need can be addressed through the knowledge portal which should contain appropriate data about the Requirements of the students and user. The increased number of jobless youths and graduates has become one of the serious issue existing both in the developing and developed countries, today. The Internet has changed the way of looking for an employment, through the development of online job portals.

A job portal is a type of web portal that provides an efficient way for searching the Internet or the web for vacant job positions available. This research will go through various types of web/job portals but will, in exact look, at job portals as a knowledge management system based on a standard framework.

This project will mainly focus on the data and information on available jobs, as needed by unemployed or job seekers. The web portals have become more important than ever because of the need to get access to find information and to gain knowledge, using the Internet. Existing portals and websites are deeply studied to conclude with the conceptual framework for the web portal to be developed in this project. Our proposed system is beneficial to everyone for better Services in Placement.

Information Should Be Included in The Resume Compared with an application form, job applicants can choose what information to include in their resumes. Some of the options for categories to include are:
(a) personal information;
(b) personal opening, job objective, career objective, and summary of qualifications;
(c) education;
(d) work experience;
(e) references;
(f) scholarships, awards, and honors;
(g) hobbies, interests, and extracurricular activities; and
(h) willingness to relocate and travel.

Next, the empirical research literature regarding the information that should be included in the resume for each of the aforementioned categories is reviewed.

A large and well-established body of research has suggested that the applicant's name, address, and phone number should definitely be included in the resume (Hornsby & Smith, 1995; Hutchinson, 1984; Hutchinson & Brefka, 1997; Mansfield, 1976; Wells, Spinks, & Hargrave, 1981). Although not focused on stylistic resume issues, a recent study by Burns, Christiansen, Morris, Periard, and Coaster (2014) has provided support for the inclusion of a school email address over a personal email address as their sample of human resource professionals provided more favorable judgments for resumes that included email addresses containing ".edu".

The advice to include a school email address over a personal email address is especially applicable for student applicants and recent graduates but may also have implications for additional applicants. Specifically, future research should address whether more professional email addresses (e.g., givenname.surname@emailprovider.com) are rated more favorably than less professional email addresses.

Although recent research has provided support for the notion that there is no need for a personal opening in a resume (Burns et al., 2014), including a job objective and/or a career objective has traditionally been found to be important information to include in a resume (Harcourt & Krizan, 1989; Harcourt, Krizan, & Merrier, 1991; Hornsby & Smith, 1995; Hutchinson, 1984; Hutchinson & Brefka, 1997; Schramm & Dortch, 1991).

Harcourt and colleagues' (1991) sample of 212 campus recruiters demonstrated a preference for a career objective over a job objective or a combined career and job objective. However, future research is needed to more conclusively demonstrate the impact of including a career objective, a job objective, or a combined career and job objective especially considering the technological advancements since some of this research was conducted. Lastly, a summary of qualifications may also be important to include in a resume (Harcourt & Krizan, 1989; Harcourt et al., 1991); however, future research is also needed to determine whether including a summary of qualifications is effective if a career objective, a job objective, or a combined career and job objective has already been included.

ANALYSIS

I have created a Automated resume builder using AI that can produce the required informatiom that need to be added in the resume for making it to stand out among the others. This section provides an in-depth analysis of the project, including software requirements, hardware requirements, and an overview of the project's content structure.

The primary objective of this project is to create a platform that simplifies the process of building a resume. This website should allow users to create, edit, and download their resumes in various formats. Additionally, the website should be user-friendly ,opensource and easy to navigate. The heart of our system will be the generation

of requried description using AI for requried modules which helps in reducing time and effort and allows for users to select what information they want to feature as well as how they want that information to be displayed.

DESIGN

During the system design, the design goals of the project are defined and the system is decomposed into smaller subsystems. In addition, the strategies for building the system are selected, such as the hardware/software mapping and the handling of boundary conditions. The result of system design is a model that includes a subsystem decomposition and a clear description of each of these strategies. In this chapter, a design model of an VBP system is developed from previously mentioned non-functional requirements. Since the definition of design goals is the first step of system design, the chapter begins with identifying design goals of the SR system. Once there is a clear idea of the design goals, next step of designing an initial subsystem decomposition can be taken.

An online resume builder website is a platform that allows job seekers to create professional and visually appealing resumes quickly and easily. In this project, we have developed an Online Resume Builder Website that enables users to create professional-looking resumes using HTML, CSS, and JS. The website provides users with a variety of customizable templates to choose from, enabling them to tailor their resumes to their specific career goals and personal preferences.

Using an online resume builder website has many benefits, including saving time and effort in the resume creation process. With the website's user-friendly interface and step-by-step guidance, individuals can create a resume that accurately represents their skills, qualifications, and achievements. We used javascript library reactjs for the backend work .

React is a JavaScript library for building user interfaces.

React is used to build single-page applications.

React allows us to create reusable UI components.

It defines the actual flow of data throughout the system. It can also be used for the

visualization of Data Processing DFD shows the interaction between the system and

 outside entities.

ER DIAGRAM:

This ER (Entity Relationship) Diagram represents the model of Resume Builder Entity.   The entity-relationship diagram of Resume Builder shows all the relations between   Skills, Question, Resume, Salary etc. It used structure data and to define the relationships between structured data groups of Resume Builder functionalities.
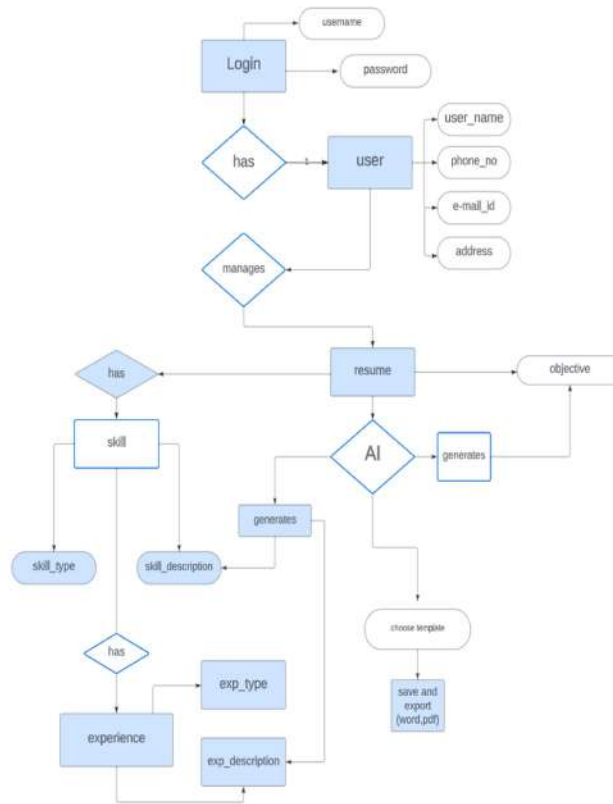
figure 4.2.1

USE CASE DIAGRAM:

A use case diagram is used to represent the dynamic behavior of a system. It encapsulates
the system's functionality by incorporating use cases, actors, and their relationships.
It models the tasks, services, and functions required by a system/subsystem of an application.
It depicts the high-level functionality of a system and also tells how the user handles a
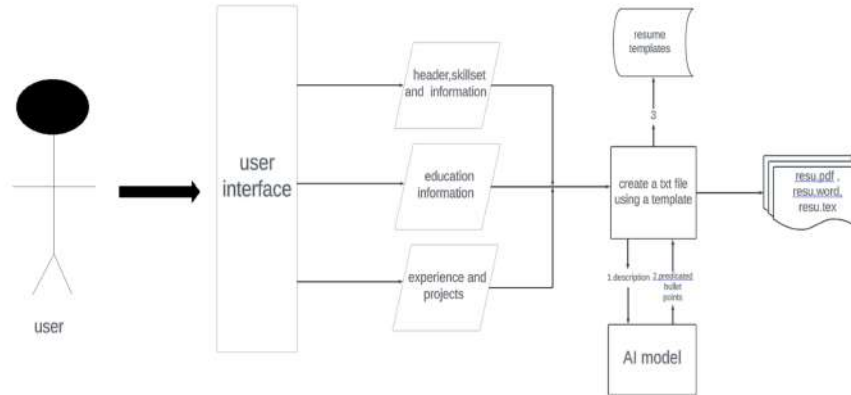 system.

figure 4.2.2

SEQUENCE DIAGRAM

A sequence diagram is a type of interaction diagram because it describes how—and in what order—a group of objects works together. These diagrams are used by software developers

and business professionals to understand requirements for a new system or to document an existing process. Sequence diagrams are sometimes known as event diagrams or event
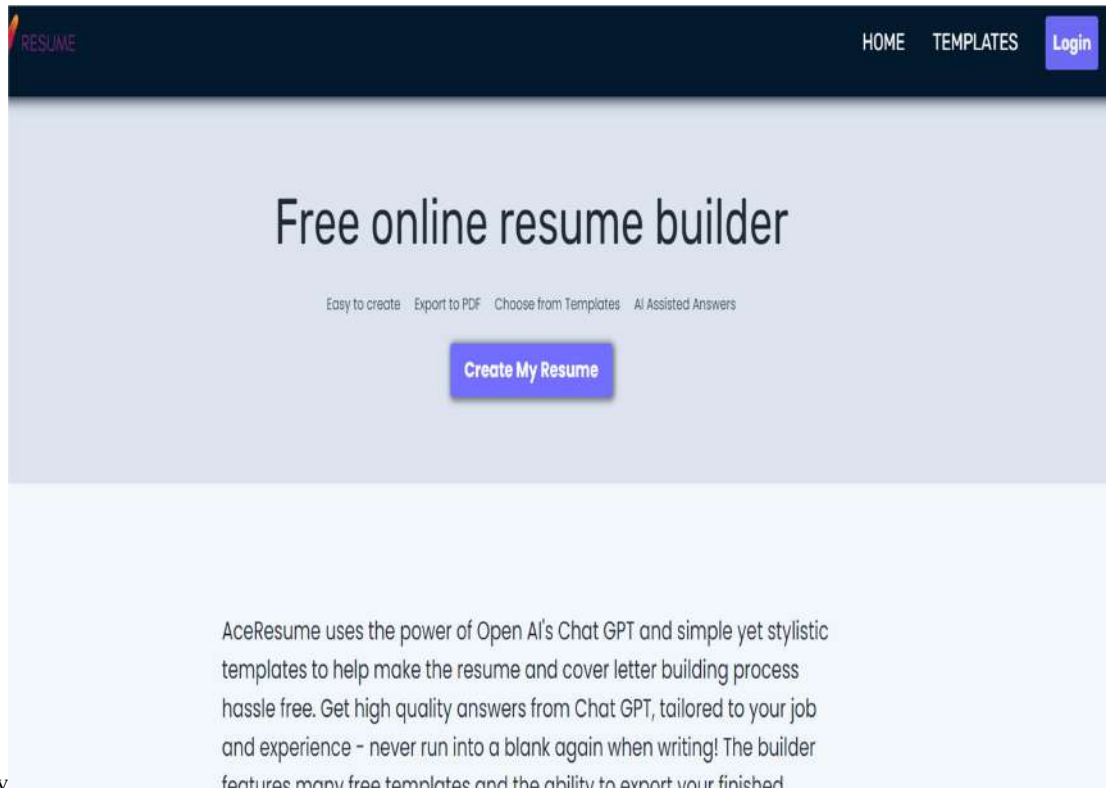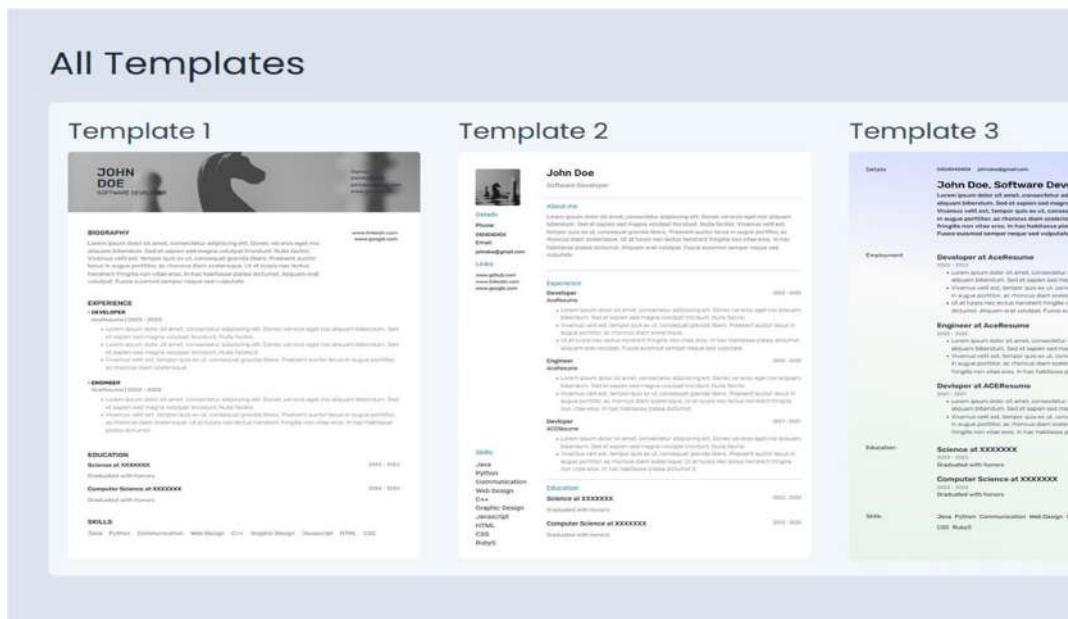
scenarios.

Output screen

 Home page:

Figure 5.3.2.1

Templates page :

Figure
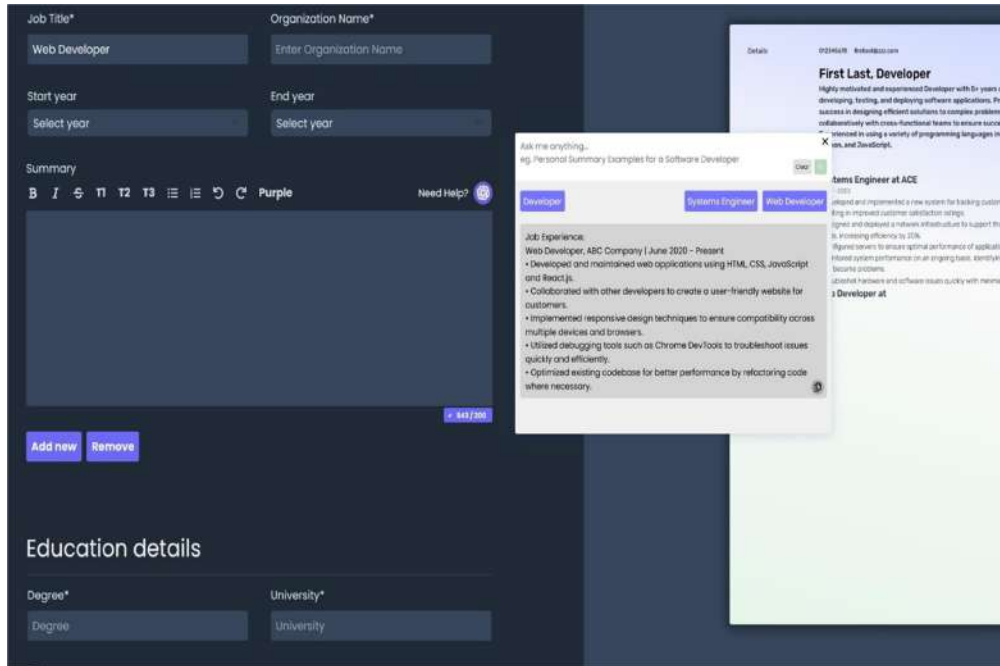
5.3.2.2

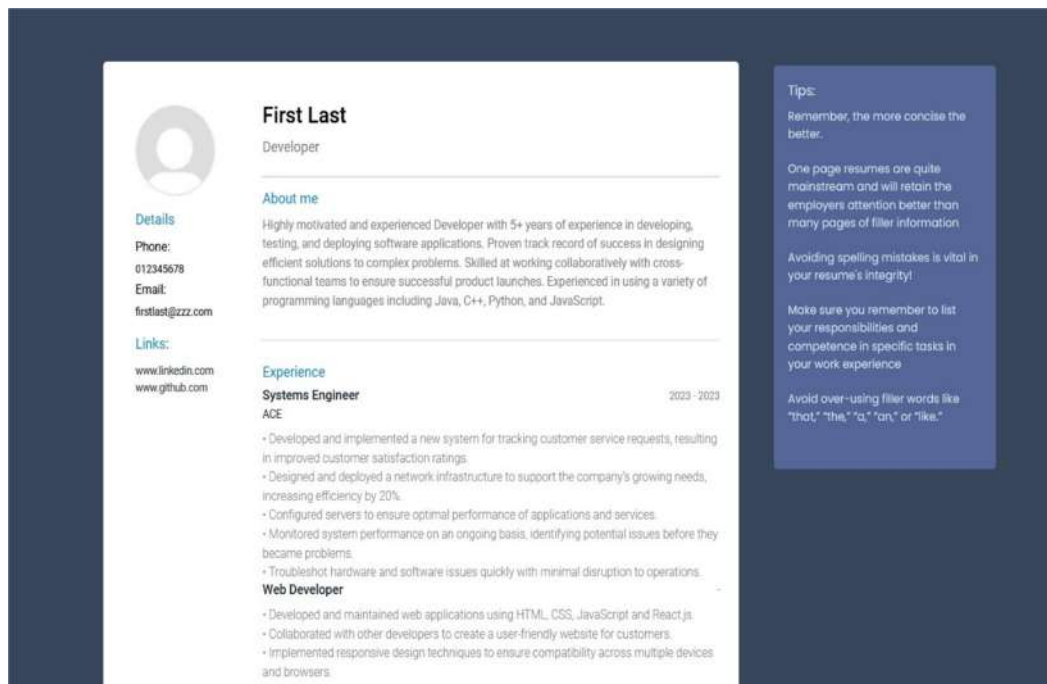**AI generation:**

Figure 5.3.2.3

Result:

FIGURE 5.2.2.4

5.3.4 Result Analysis

This chapter provides information about the website's implementation phase. This section provides a succinct overview of the key features that were used to develop the Automated Resume builder using AI. It is made up of numerous source codes that were used to create this website. Additionally provides the results of each area, which clarifies the various possibilities available to correctly finish project.

CONCLUSION

Conclusion:

The Resume Builder Application is a web-based application that may be used to construct a resume by both novice and experienced users. Users can construct a resume in a standard manner using the Resume Builder Application. It also encourages open-source developers to develop open-source goods. The project successfully addressed the challenges associated with manual resume creation by introducing an automated solution powered by AI. The system's ability to dynamically generate personalized resumes showcases its potential in revolutionizing the job application process.

Future Scope:

Our future features will include a larger gallery of graphics and templates, so that users can effortlessly design resumes that match the different format criteria for various occupations.Due to the added options for resumes, we will also need to build a system to logi ,singup and sign in. In addition, I would like to add the following in the future:

- Linkdein integration : Enable seamless integration with LinkedIn profiles, allowing users to import their professional information directly and ensuring consistency across platforms.

- User feedback mechanism : Implement a system for users to provide feedback on the generated resumes, facilitating continuous improvement of the AI algorithms.

- Language diversity: Expand language support to cater to users from different linguistic backgrounds, making the resume builder more inclusive and globally accessible.

- Job matching integration: Collaborate with job portals to integrate a feature that matches generated resumes with relevant job postings, providing users with tailored job suggestions.

- Enhcnced security measures: Implement robust security measures to protect user data, addressing any privacy concerns and ensuring compliance with data protection regulations.

- Mobile optimization : Develop a dedicated mobile application to provide users with a seamless resume-building experience on their smartphones, increasing accessibility.

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