

Resume Builder AI

Team Members

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Abstract

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Creating professional resumes is often a time-consuming task for students and job seekers.

Our project, Resume Builder AI, is designed to simplify this process by generating customized, well-formatted resumes using AI-driven inputs. The system takes user-provided data and intelligently formats it into industry-standard resume templates, saving time and ensuring consistency.

Problem Statement

Problem Statement:

Many individuals struggle with:

- Proper resume formatting
- Highlighting relevant skills and achievements
- Choosing professional templates and designs
- Making resumes ATS (Applicant Tracking System) friendly

Our goal was to create a smart, user-friendly application that automates the resume-building process efficiently.

Objectives

Objectives:

- Provide an intuitive form for users to input personal, academic, and professional details
- Use AI to suggest content improvements (e.g., better phrasing of roles or achievements)

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- Generate downloadable, cleanly formatted resumes in PDF format
- Offer multiple templates to choose from
- Maintain data privacy and a smooth user experience

Tools & Technologies Used

Tools & Technologies Used:

- Frontend: HTML5, CSS3, JavaScript
- Backend: Python 3, Flask
- Libraries & Tools:
 - Jinja2 (for template rendering)
 - WeasyPrint / ReportLab (for PDF generation)
 - OpenAI API (optional AI content suggestions)
 - SQLite (for optional user data storage)

System Architecture

System Architecture:

1. Frontend: Users fill out a multi-step form with resume details
2. Backend: Flask receives the data and processes it
3. Template Engine: User data is inserted into a selected resume template
4. PDF Generation: The final resume is compiled and provided as a downloadable PDF

Working Model

Working Model:

- Users access the web app and enter their resume details
- The app offers suggestions to improve job descriptions, skills, etc.
- A preview of the resume is shown in real-time
- Users can choose different templates before finalizing

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- The resume is generated and downloaded as a PDF file

Features

Features:

- AI-assisted content enhancement
- Real-time resume preview
- Multiple professional templates
- Downloadable PDFs
- User-friendly and responsive design
- Option to save or export user data (for future use)

Advantages

Advantages:

- Simplifies resume creation
- Ensures high-quality formatting and content
- Saves time and effort
- Increases chances of selection by being ATS-friendly
- No design or content skills required

Future Enhancements

Future Enhancements:

- User authentication and profile management
- Cloud storage of resumes for easy access and updates
- Integration with LinkedIn for auto-filling details
- AI-powered job matching and resume customization
- Export to DOCX, JSON, and other formats
- Analytics to track views/downloads (for hosted resumes)

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Conclusion

Conclusion:

The Resume Builder AI project delivers a fast, intelligent, and professional solution for resume creation. It empowers users to craft effective resumes with minimal effort while ensuring high standards. With future integrations and features, it can evolve into a complete career management platform.