

Minor Project Proposal & Synopsis

1. Title of the Project

ATS-Friendly CV Optimizer and Smart Job Hunting Assistant

2. Team Members

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3. Introduction / Background

In today's competitive job market, candidates often struggle to get their CVs noticed by recruiters due to Applicant Tracking Systems (ATS). A well-designed resume that matches the job description plays a crucial role in securing interviews. Our project aims to help students and job seekers by automatically analyzing, optimizing, and tailoring their CVs to be ATS-friendly. Along with this, the system will also suggest relevant and recent job opportunities from popular job portals, making the job search faster and more efficient.

4. Objectives

- To develop a system that can analyze a CV against a preferred job role.
- To calculate and display the ATS score of the CV.
- To automatically optimize and generate an ATS-friendly CV.
- To use web scraping for fetching valid and recent job postings (within the last 1 hour).
- To suggest the **top 5 job portals** with matching jobs for the user.
- To provide interview preparation resources and additional support for the candidate.

5. Problem Statement

Most job seekers face rejections even before an interview because their CVs are not properly formatted or do not align with the job role as per ATS requirements. Additionally, finding genuine and up-to-date job postings is a time-consuming process. Our project addresses both of these problems by automating CV optimization and smart job searching.

6. Methodology / Approach

- **Input:** User uploads their CV and specifies the preferred job role.
- **CV Analysis:** System evaluates the CV against the job description and calculates the ATS score.
- **Optimization:** The CV is restructured into an ATS-friendly format.
- **Web Scraping:** Extracts recent job postings (filtered to within the last 1 hour) from popular job portals.
- **Job Suggestions:** Provides top 5 job sites and relevant job postings.
- **Support:** Offers curated resources for interview preparation.
- **Technologies:** Python, Flask/Django for backend, HTML/CSS/JS for frontend, Natural Language Processing (NLP) for CV analysis, BeautifulSoup/Scrapy for web scraping, and possibly APIs for job platforms.

7. Expected Outcome

- A functional website that accepts a CV and job role as input.
- An ATS score report with suggestions for improvement.
- An optimized ATS-friendly CV.
- A list of the most recent and valid job postings from top job portals.
- Additional resources to help users prepare for interviews.

8. Future Scope (for Major Project)

- Integration with LinkedIn and other professional platforms.
- Real-time job alerts through email or notifications.
- AI-based personalized career guidance.
- Support for multiple languages and international job markets.
- A full-fledged mobile application for job seekers.

9. References

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