

AI Resume Shortlister using NLP

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1. Introduction

The AI Resume Shortlister automates the process of filtering resumes based on a job description using Natural Language Processing (NLP) and cosine similarity.

2. Problem Statement

Manual resume screening is time-consuming and prone to bias. Automating this can save HR time and improve fairness.

3. Methodology

- Extract text from PDF resumes
- Preprocess the text using lemmatization and stopwords removal
- Extract features using TF-IDF
- Calculate cosine similarity with the job description
- Rank resumes based on similarity

4. Technologies Used

- Python
- spaCy

- scikit-learn

- PyMuPDF

5. Results

Resumes are ranked and saved in a CSV file with similarity scores.

6. Conclusion

This system can be integrated into larger HR systems for automated resume shortlisting.