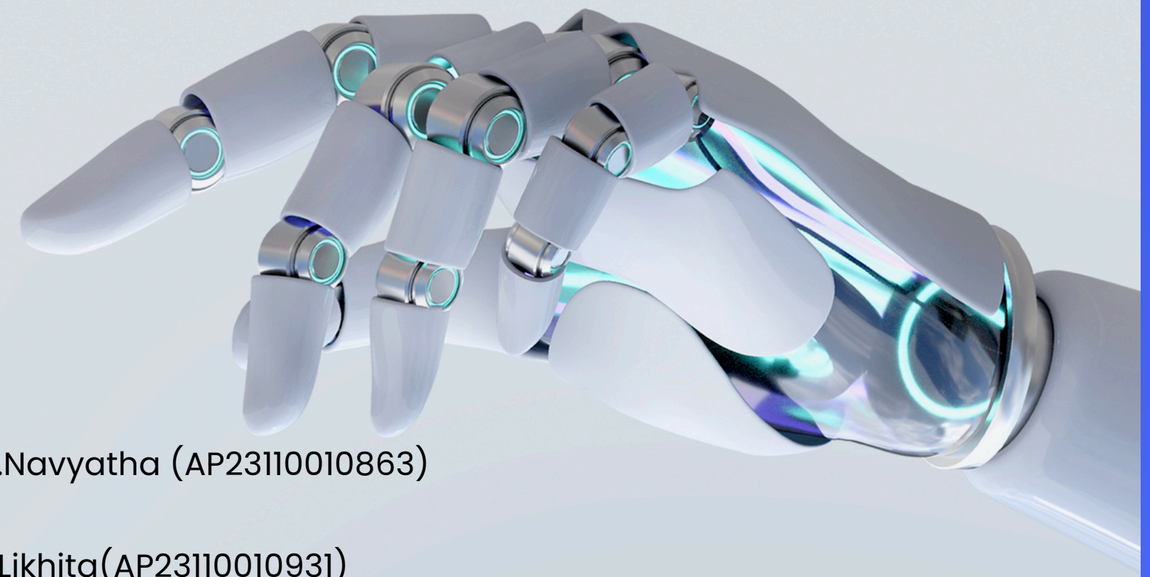
AUTOMATED RESUME SCREENING

Presented By AI HUB

TEAM DETAILS



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PROBLEM STATEMENT & OBJECTIVES

Traditional resume screening is slow, manual, and prone to human error. HR teams struggle to review large numbers of resumes and accurately match candidate skills with job requirements. This leads to delays in hiring, inconsistent shortlisting, and increased workload on recruiters. There is a need for an automated system that can extract resume information, identify skills, compare them with job descriptions, and generate a fit score to rank candidates efficiently.

PROPOSED SOLUTION & WORKFLOW

How Our AI HR Assistant Works ?

- Upload Resumes (PDF, DOCX, Images)
- Text Extraction using OCR / NLP
- Skill Extraction using keyword matching + ML models
- Job Description Analysis
- Fit Score Calculation
- Rank Candidates Automatically

DATASET

Sample resumes (PDF, DOCX)
Job descriptions from HR datasets
Skill keyword lists
Pre-trained embeddings (Word2Vec / BERT)

METHODOLOGY

Text extraction (PyPDF2, docx)
Preprocessing → tokenization, stopwords removal
TF-IDF / BERT-based vectorization
Cosine similarity for match scoring
Ranking algorithm for profile selection

TECHTECHNOLOGIES USED

DESIGN

BACKEND

- Python 3.x
- Flask or FastAPI (for REST API)
- NLP Libraries
- NLTK
- spaCy
- scikit-learn

FRONTEND

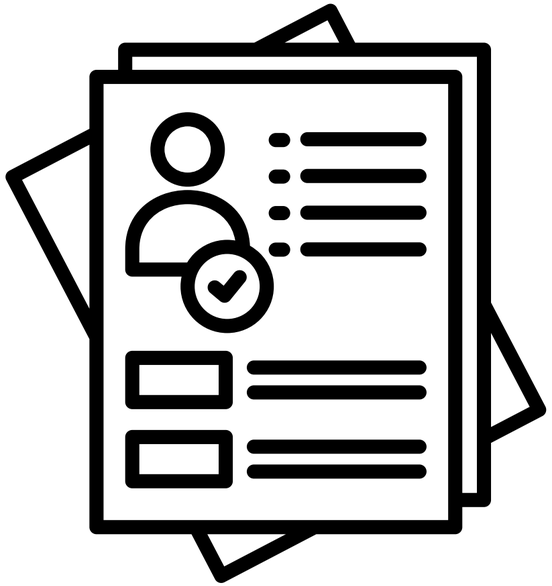
- HTML5 – Structure of the web interface
- CSS3 – Styling the webpage
- JavaScript – Basic interactions and client-side logic

TECHNOLOGY

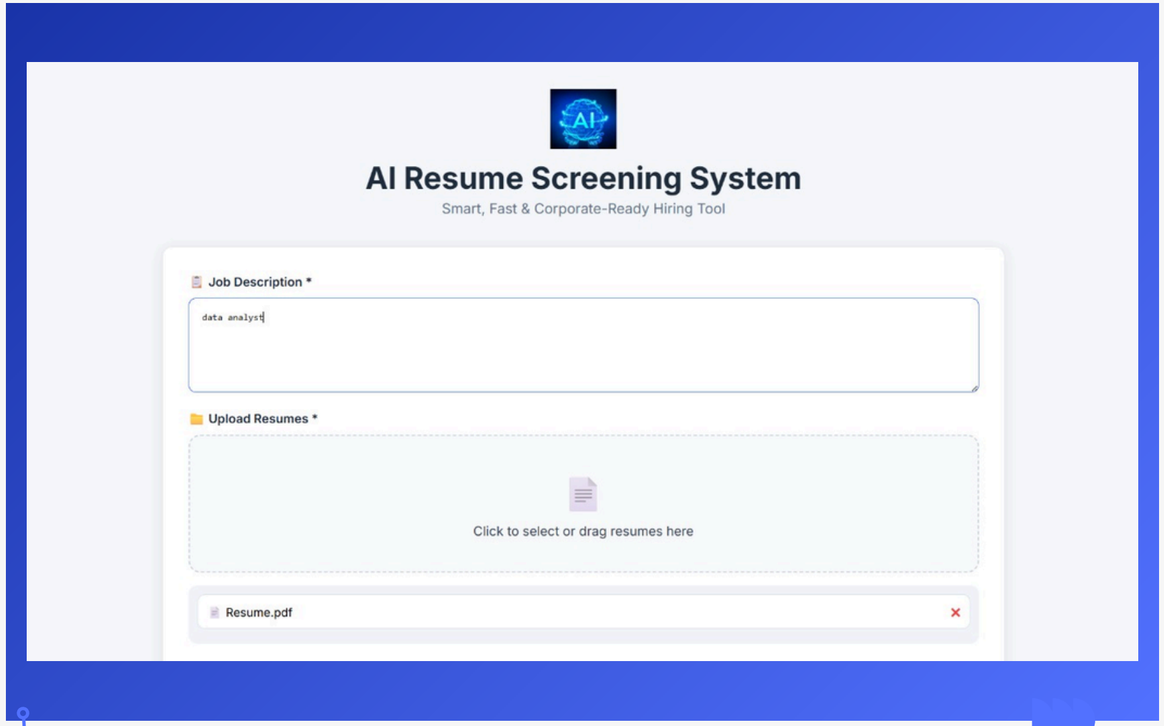
RESUME PROCESSING AND SKILL EXTRACTION

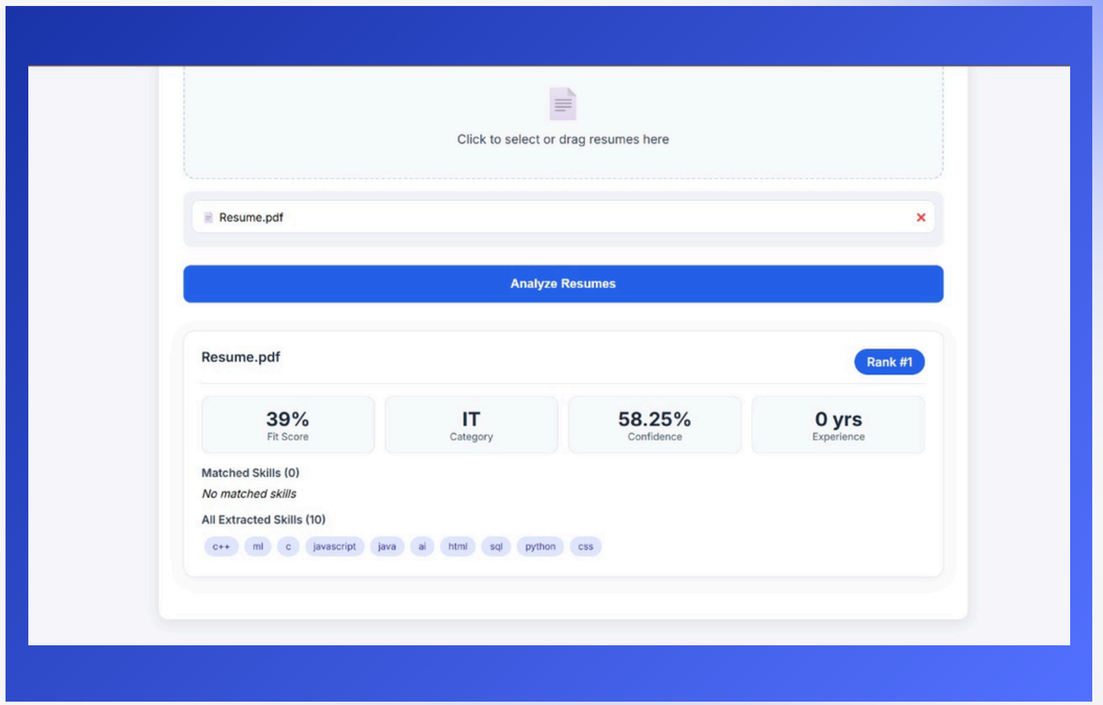
What the AI Extracts from Resumes

- Skills (Technical & Soft Skills)
- Education details
- Experience years & job roles
- Certifications & projects
- Keywords matching job needs



RESULT AND FINDINGS





CONCLUSION

- The AI HR Assistant speeds up the hiring process.
- It reduces manual work for HR teams.
- It identifies skills accurately from resumes.
- It matches candidate skills with the job requirements.
- It generates a fit score to rank candidates easily.
- It improves the accuracy and fairness of shortlisting.
- Overall, it helps HR select the right candidates faster.

THANK YOU