

# AI RESUME RANKER

AI Virtual Internship - Project Report

Project Title: AI-Powered Resume Ranker

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Internship Domain: Artificial Intelligence Machine Learning

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## 1. Introduction

The AI Resume Ranker is a machine learning-based web application that automatically ranks resumes based on how closely they match a given job description. This project helps companies quickly shortlist the most suitable candidates using AI.

## 2. Tools and Technologies Used

- Python
- Scikit-learn
- Natural Language Processing (NLP)
- Streamlit
- Google Colab
- Pandas, NumPy
- Pickle (for model saving)
- GitHub (for version control & hosting)

## 3. Problem Statement

Manual resume screening is time-consuming and prone to human bias. This project aims to automate resume screening by building a model that

- Takes job description and resumes as input
- Ranks resumes based on similarity
- Helps in faster candidate shortlisting

#### 4. Project Methodology

##### Step 1: Data Collection

- Collected multiple sample resumes and job descriptions for training.

##### Step 2: Data Preprocessing

- Cleaned the resume text
- Removed stopwords, punctuation, and special characters

##### Step 3: Feature Extraction

- Used TF-IDF (Term Frequency-Inverse Document Frequency) for vectorization


##### Step 4: Model Training

- Trained a cosine similarity-based ranking system using the TF-IDF vectors


##### Step 5: Web Interface


- Built an interactive UI with Streamlit to upload resumes and get ranking output

#### 5. Results & Screenshots

 Achieved correct ranking based on job relevance

 User-friendly interface using Streamlit

 Screenshot 1: App homepage

 Screenshot 2: Uploaded resumes with rank

 Screenshot 3: Ranked result displayed

> (Paste your screenshots here)

## 🌟 6. Learnings & Outcome

- Understood NLP techniques like TF-IDF and text vectorization
- Learned how to build ML apps using Streamlit
- Improved skills in Python, model saving, and GitHub

## 📄 7. Conclusion

This project shows how AI can streamline hiring by automating the resume screening process. The Resume Ranker is scalable and can be integrated into any hiring platform.

## 🧠 9. References

Scikit-learn Documentation

Streamlit Documentation