



# HireMate – AI Hiring Assistant

Holboxathon 2025 Submission

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## Overview

**HireMate** is an intelligent, lightweight, no-paid-AI hiring assistant. It helps recruiters simplify the hiring process by enabling:

- Resume upload and parsing

- Rule-based candidate-to-job matching
- Candidate scoring and ranking
- Interview email auto-generation
- A clean and demo-ready Streamlit interface

Built for teams that need smart hiring without the cost of commercial AI.

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## ? Problem Statement

Recruiters face repetitive tasks like:

- Reading dozens of resumes
- Matching them manually to job descriptions
- Following up with emails
- Scheduling interviews

This causes delays, inconsistent screening, and poor candidate experience — especially in small or mid-sized companies that can't afford full-fledged paid AI tools.

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## Solution Summary

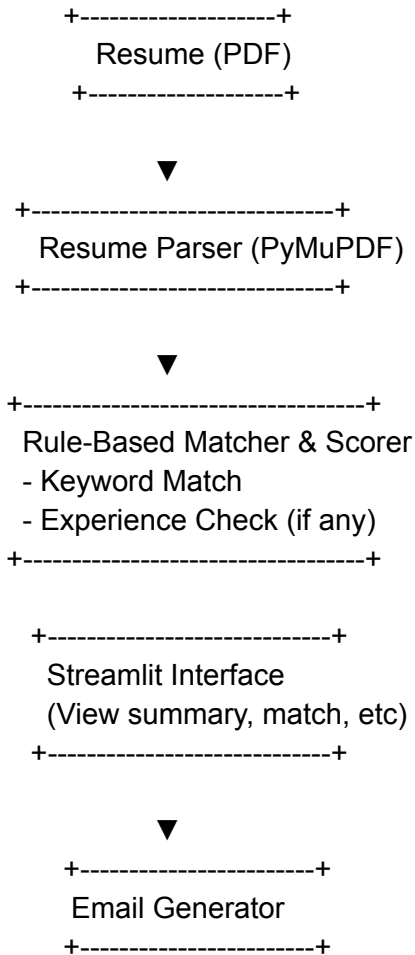
**HireMate** uses only free tools to:

- Automatically extract and summarize resume content
- Compare it to job descriptions via a rule-based engine
- Score and rank candidates using keyword matching
- Send a professional interview invitation (via dynamic template)

No OpenAI, GPT, or cloud AI needed.

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## System Architecture Diagram



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## Models / Logic Used

### 1. Resume Parser (Model: PyMuPDF)

- Extracts clean text from uploaded **.pdf** resumes
- Strips whitespace, combines all pages

## 2. Job Matching Logic

- Compares extracted resume text to job description keywords
- Uses:
  - Keyword overlap (skill match)
  - Minimum experience years (if extractable)
  - Bonus keywords for ranking

## 3. Scoring System

- $\text{Score} = \text{Total matches} \times \text{weight}$
- Bonus for strong matches like frameworks/tools
- Penalty if key skills missing

## 4. Email Generator

- Uses Python string templates with dynamic name/role

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## Technologies Used

Tool	Purpose
Python 3.x	Core programming language
Streamlit	Web UI with no frontend coding
PyMuPDF	PDF parsing
JSON	Simple data storage
smtplib (opt)	Email sending
VS Code	Code editor

## Installation Instructions

### 1. Install Python

- Download Python from: <https://www.python.org/downloads/>
- Check “Add Python to PATH” during installation

### 2. Install Required Packages

```
pip install streamlit pymupdf
```

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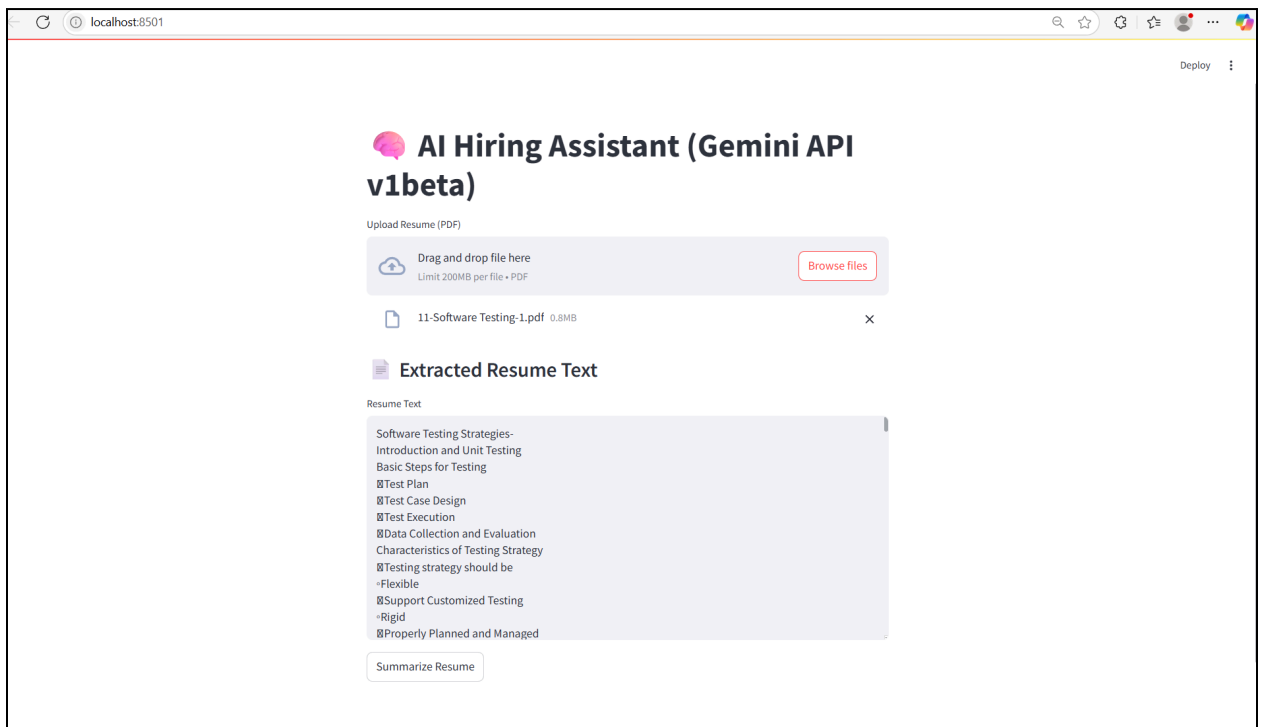
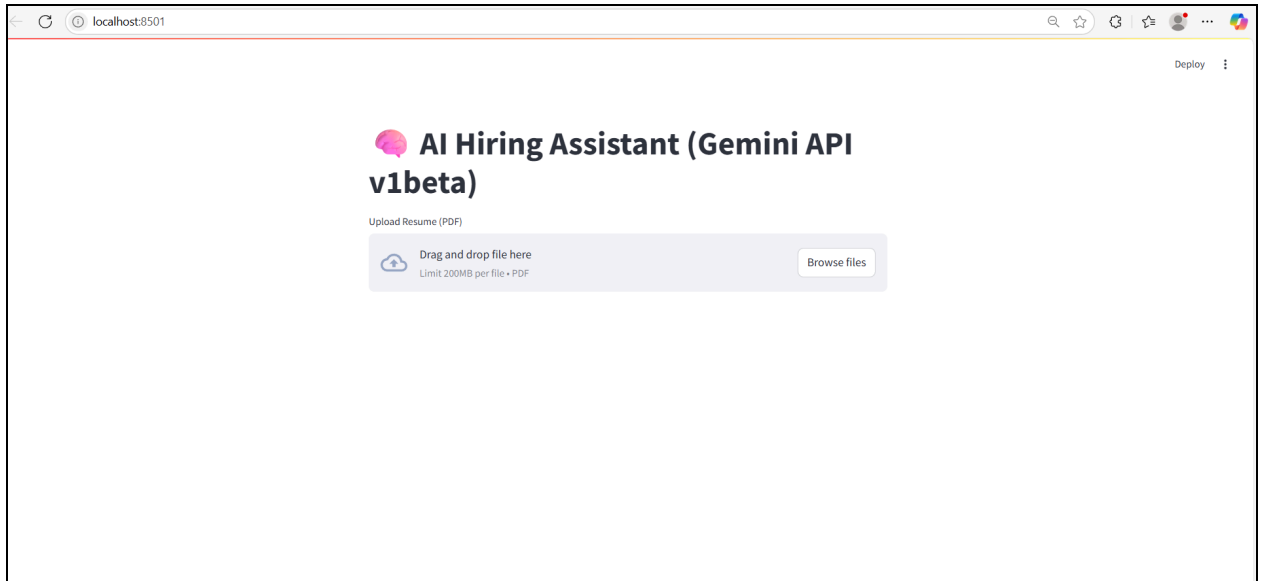
## How to Use the App

1. Save your main file as `hiring_assistant.py`
2. Run it using:

```
streamlit run hiring_assistant.py
```

3. Upload a resume (PDF)
  4. Choose a job title (preloaded or manual)
  5. Get summary, match score, and email invite
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## Screenshots



✓ AI Summary

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## Future Improvements

- Support `.docx` resumes
- Add resume summary visualization (bar chart, keywords)
- Store candidate history in a database (SQLite)
- Add admin login to review applicants
- Schedule interviews via Google Calendar API (free)

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## Contributors

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GitHub link: [kalpeshgangani16/HireMate](https://github.com/kalpeshgangani16/HireMate)