



Bridging the Gap between AI efficiency and human centric hiring!

TEAM: CodeVengers

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Problem Statement & Market Need

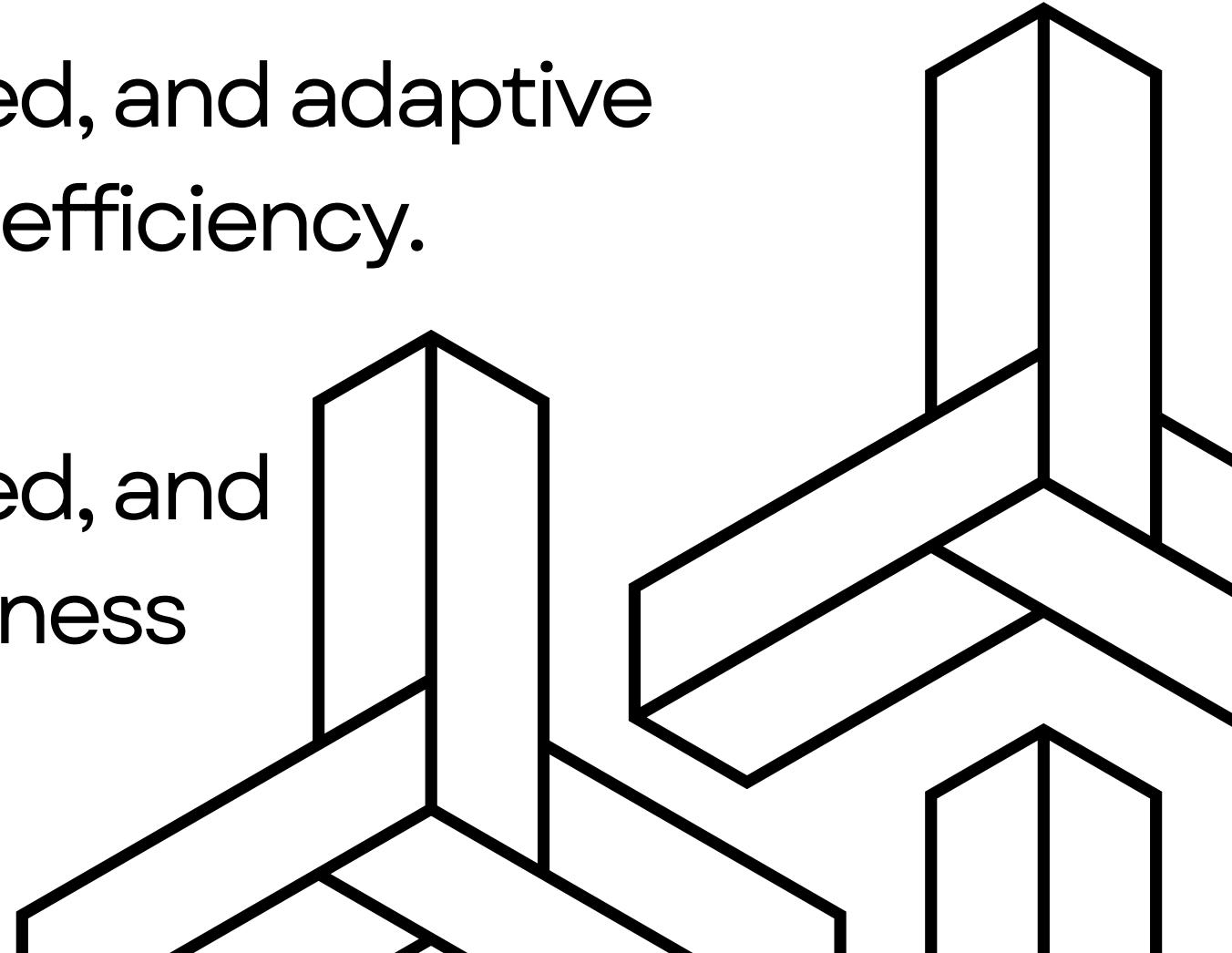
Self-Evolving Neuro-Symbolic AI for Fair & Future-Proof Hiring

Real-World Impact:

Revolutionizing hiring with an AI-driven, unbiased, and adaptive recruitment process that ensures fairness and efficiency.

Target Audience:

Revolutionizing hiring with an AI-driven, unbiased, and adaptive recruitment process that ensures fairness and efficiency.





An adaptive, bias-aware AI hiring assistant that empowers recruiters with fair, transparent, and intelligent hiring decisions.

Key Features:

- 1 Job Description Creator
- 2 CV Analyser
- 3 AI-Powered Interviews

How Our Solution Addresses the Challenges:

- **Real-Time Learning** – Our JD Generator adapts using OpenAI API, continuously refining job descriptions based on recruiter inputs.
- **Bias Reduction** – AI-powered Virtual Interviews (OpenAI + Heygen API) eliminate human bias, ensuring fair assessments.
- **Explainable Decisions** – The CV Analyzer provides a transparent skill-based ranking system with recruiter-defined weightages.
- **Recruiter Empowerment** – HR managers can adjust AI decisions, fine-tune rankings, and analyze AI-driven candidate insights.

Job Description Creator

- **Form-based input system** for structured job requirements.
- **OpenAI API integration** to generate and refine job descriptions dynamically.
- Continuous learning mechanism **adapting to recruiter modifications** for better accuracy.

CV Analyser

- AI-powered CV parsing to extract and analyze skills from resumes.
- Customizable weightage system for recruiters to refine AI-driven rankings.
- Explainable AI logic ensuring transparency and fairness in selection.

AI Powered Interview

- **OpenAI API integration** for generating intelligent, context-aware interview questions.
- **Heygen API-Powered avatars** simulating realistic interviewer interactions.
- Eliminates human bias by providing a consistent and objective AI-driven interview experience.

Target Market & Potential:

- HR Tech companies, staffing agencies, job portals, EdTech, and government hiring.
- Global AI recruitment market valued at \$661.56M in 2023, projected to reach \$1.12B by 2030 (CAGR 6.8%).
- Rising demand for bias-free, automated, and scalable hiring.

Competitor Landscape

- **Competitors:** HireVue, Pymetrics, LinkedIn Talent Hub.
- **Our Differentiation:**
 - a. **AI-Powered Interviews** – Generative AI + Heygen avatar for unbiased, automated interviews.
 - b. **Explainable CV Screening** – AI with skill-based ranking and recruiter-defined weightage.
 - c. **Real-Time JD Generator** – AI learns dynamically from recruiter inputs.

Monetization & Revenue Model

- **SaaS Tiers** – Startup, Growth, Enterprise.
- **Pay-Per-Use API** – JD generation, CV analysis, AI interviews.
- **Enterprise Licensing & B2B Partnerships** – HR platforms, EdTech, job portals.
- **Freemium Model** – Basic features free, advanced AI via subscription.

Tech Stack & Implementation

1. Job Description Creator:

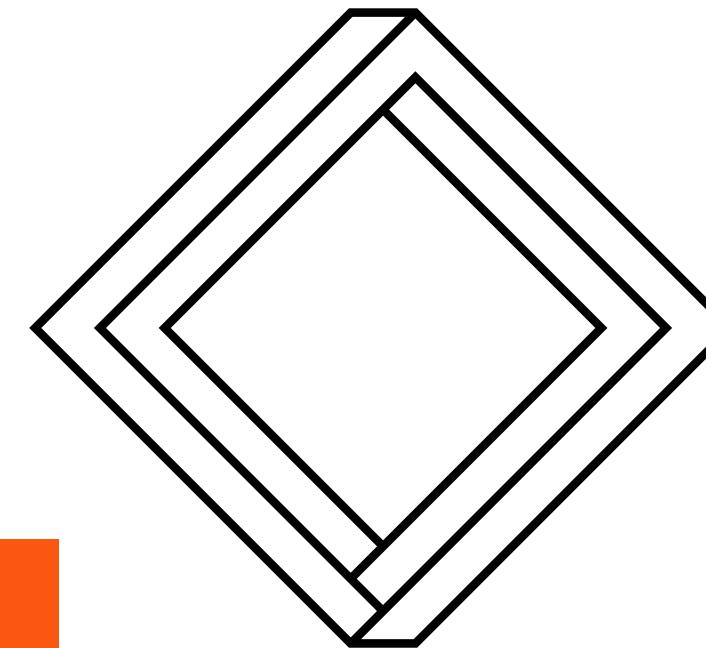
Fully functional prototype using OpenAI API to generate tailored JDs, served via Python backend and styled with HTML/CSS.

2. CV Analyzer: Beta version ranks resumes with 85% accuracy, leveraging OpenAI for text analysis, hosted on Azure.

3. AI-Powered Interview: powered by OpenAI and leveraged by Heygen API virtual avatar.

Frontend

HTML & CSS for a responsive, user-friendly interface.



Backend

Python (Flask) for server-side logic and API integration.

GenAI

OpenAI API key for advanced NLP (job descriptions, CV analysis) and conversational AI (interviews)

Azure

Microsoft Azure for hosting, storage, and scalability.

Application Interface

RecruiterAI

Revolutionize HR with AI-powered efficiency

Job Description Creator

An AI-powered tool that simplifies the process of creating comprehensive and tailored job descriptions, helping employers attract the right candidates and streamline the hiring process.

Generate Now!

CV Analyzer

Tool that helps in Revolutionizing Recruitment through AI-Powered CV Ranking

Analyse Now!

AI-Powered Interview

AI-powered Interview revolutionizes the hiring process by employing advanced algorithms to conduct automated interviews, assessing candidate's skills and personalities more objectively.

Start Interview!

<https://www.youtube.com/watch?si=qPA2hkKzpiVmFTrg&v=vhUd5ej8AM8&feature=youtu.be>

Application Interface

RecruiterAI

Job Description Maker

Home Job Description Maker CV Analyzer Interview

Location Enter the job location

Job Title Enter the job title

Designation Level Enter the designation level

Line Of Service Enter the line of service

Desired Skills Generate Now!

Upload your template or click Submit to use the predefined template.
You can download predefined template using Download and edit it before uploading.

Drag and drop or choose file.

Download Template Submit

RecruiterAI

Job Description Maker

Home Job Description Maker CV Analyzer Interview

Location Enter the Job Location

Job Title Enter the Job Title

Designation Level Enter the Designation Level

Line Of Service Enter the Line Of Service

Desired Skills Generate Now!

A	B	C	D	E	F	G
1	FormFields	Options				
2	Location					
3	Job Title					
4	Designation Level					
5	Line Of Service					
6	Strategic Business Unit					
7	Desired Skills					
8	Years of experience					
9	Manager name					
10	Language					
11						
12						
13						
14						

RecruiterAI

Job Description Maker

Home Job Description Maker CV Analyzer Interview

Desired Skills Python , R studio , Tableau , SAS , SQL

Years of experience 1

Manager name Yash

Language English

Generate Now! Download JD View JD

Job Description

Job Title: Data Scientist
Job Category: Information Technology
Level: Experienced
Specialty/Capability: Data Analysis and Machine Learning
Industry: Technology
Job Type: Regular
Term: Full-time
Location: Mumbai

A career as a Data Scientist at RecruiterAI offers you the opportunity to work on cutting-edge data analysis projects that drive business insights and innovation. You will be part of a diverse team dedicated to solving complex problems and extracting meaningful insights from vast datasets, enabling our clients to make informed decisions and achieve their goals.

As a Data Scientist, you will work collaboratively with cross-functional teams to develop and implement data-driven solutions. You will have access to a wealth of resources and expertise, allowing you to grow your skills and advance your career. We offer competitive compensation and benefits, including:

Key Responsibilities:

- Collaborate with team members to design and implement data models and algorithms.
- Analyze large datasets to identify trends, patterns, and insights that can drive business decisions.
- Develop and maintain data pipelines and workflows to ensure data quality and integrity.
- Use statistical methods and machine learning techniques to build predictive models.
- Communicate findings and insights to stakeholders through data visualization and reports.
- Stay updated with the latest industry trends and technologies in data science.

Job Requirements and Preferences:

Basic Qualifications:

- Minimum Degree Required: Bachelor's Degree in Computer Science, Information Technology, Statistics, or a related field.
- Minimum Years of Experience: 1 year(s).

Preferred Qualifications:

- Preferred Fields of Study:
 - Data Science, Computer Science, Information Technology, Statistics, Mathematics
- Preferred Knowledge/Skills:
 - Proficiency in programming languages such as Python and R Studio

Application Interface

RecruiterAI

Home Job Description Creator CV Analyzer Interview

CV Analyzer

Upload CVs
You can upload PDF Files.
Drag and drop or [choose file.](#)

Upload Job Description
You can upload PDF Files.
Drag and drop or [choose file.](#)

Analyse

RecruiterAI

Home Job Description Creator CV Analyzer Interview

CV Analyzer

Drag and drop or [choose file.](#)
4 CV(s) uploaded

Upload Job Description
You can upload PDF Files.
Drag and drop or [choose file.](#)
Job_Description_Digital HR Manager (1)

Skills and Weightages

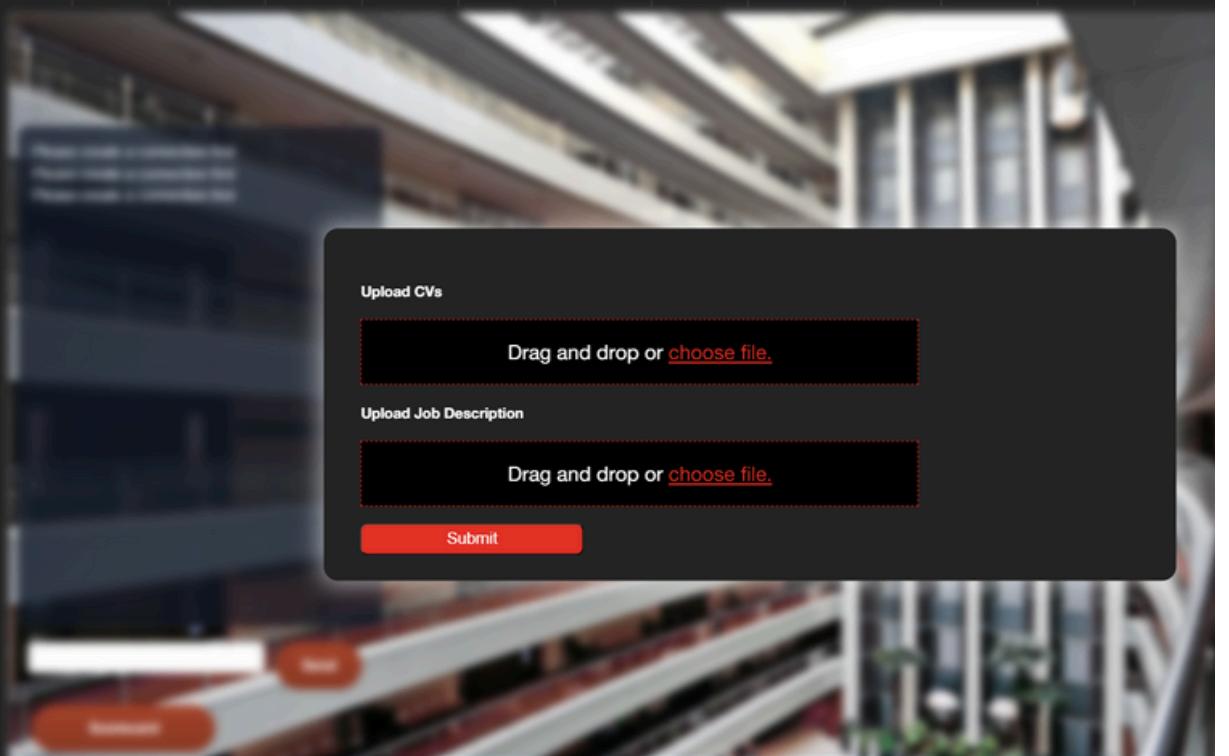
Skill	Weightage%
Experience in HR management	10%
Experience in HR systems implementation	15%
Proficiency in HR tools and data analytics	15%
Knowledge of SuccessFactors or similar HR platforms	15%
Team management experience	10%
Communication and interpersonal skills	10%
Project management skills	10%

Closest match List

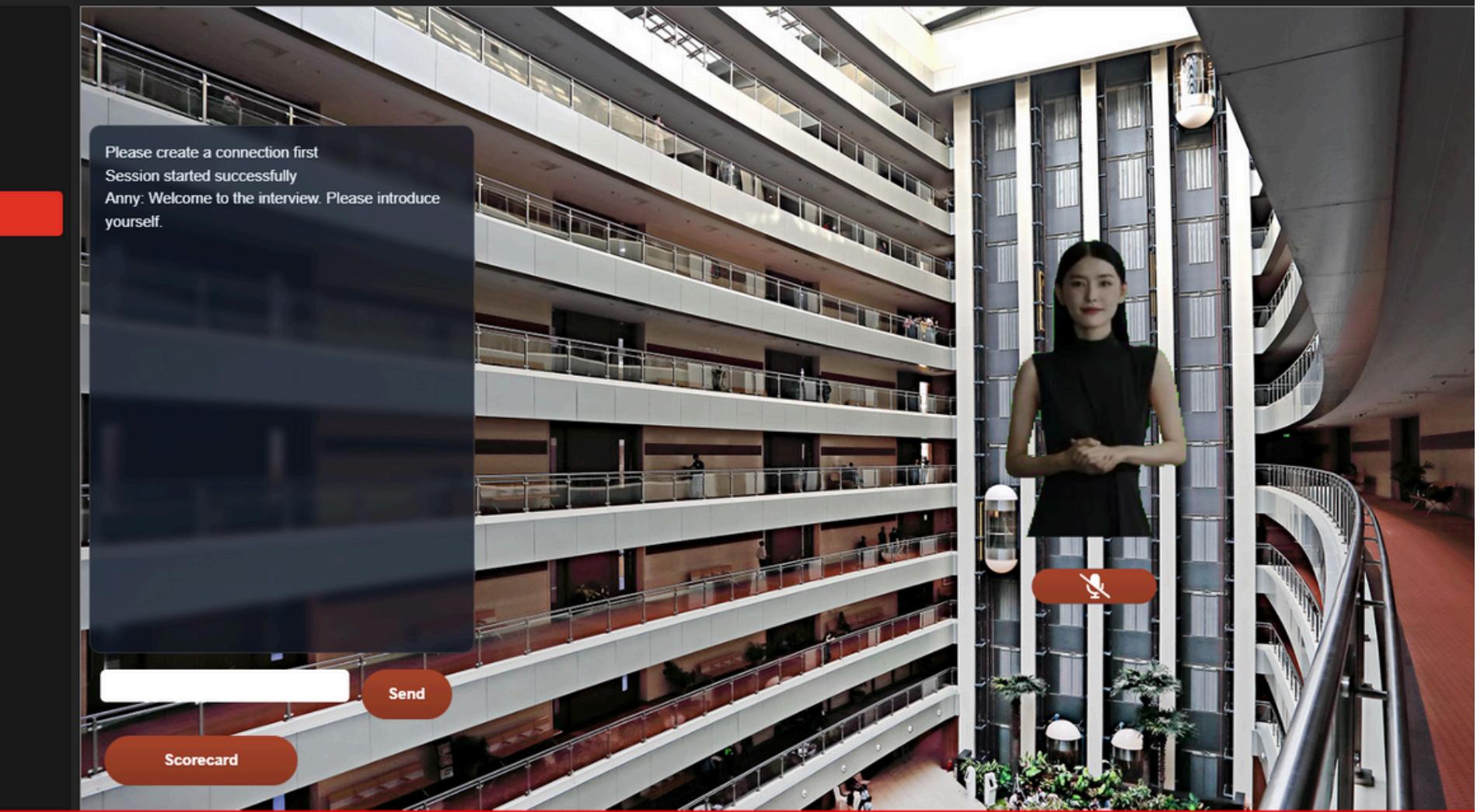
Employee Name	Score	Interview
Alex Johnson	85/100	Interview Now!
Mark Williams	80/100	Interview Now!
Jane Smith	75/100	Interview Now!
John Doe	70/100	Interview Now!

Download

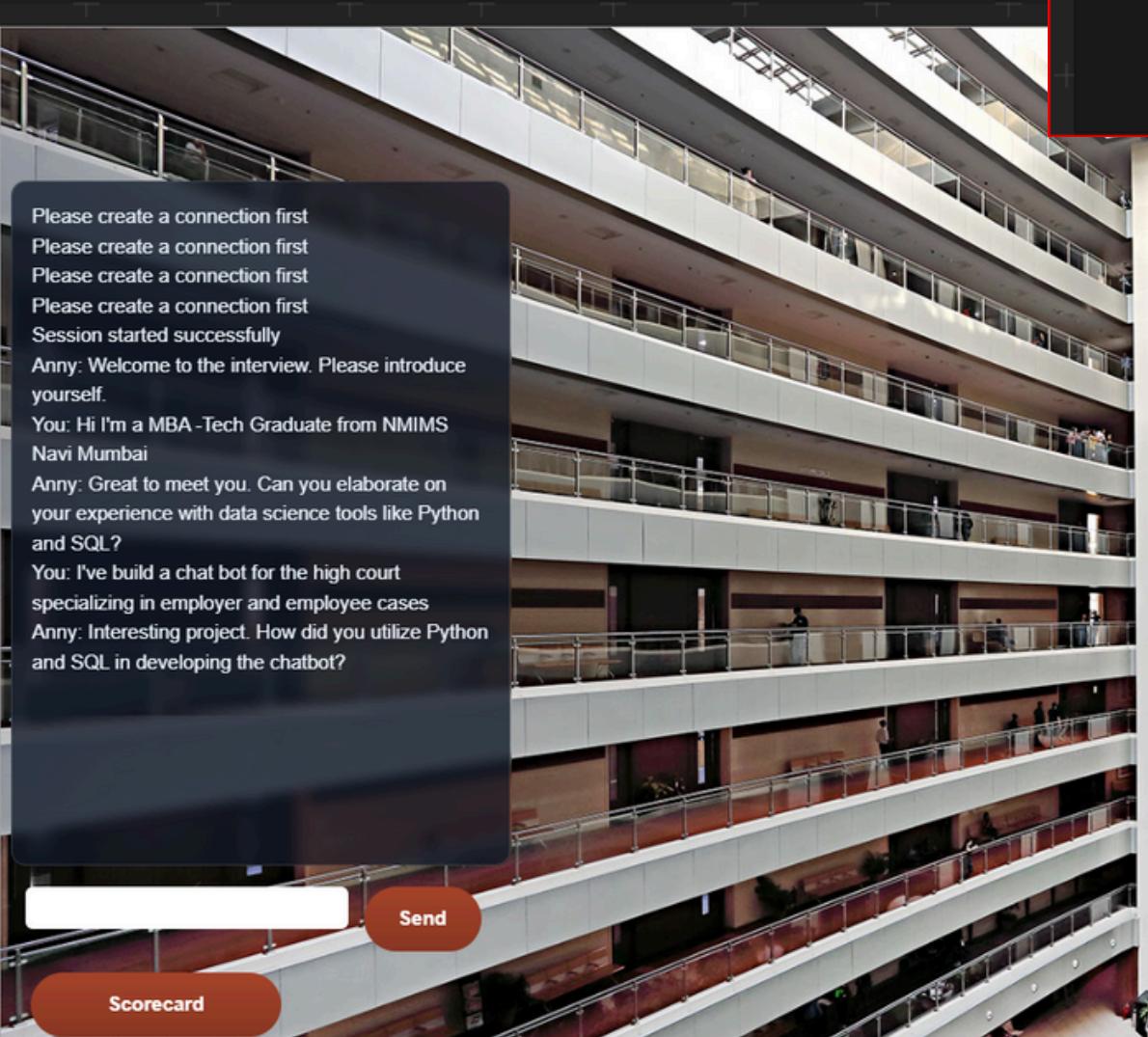
Home
Job Description Creator
CV Analyzer
Interview



Home
Job Description Creator
CV Analyzer
Interview



RecruiterAI
Home
Job Description Creator
CV Analyzer
Interview



Criteria	Score
Technical Knowledge	6/10
Understanding of Job Description	5/10
Candidate's Experience	4/10

Future Scope & Scalability

- AI-Powered Proctoring – Implement real-time monitoring in AI interviews to prevent impersonation and ensure candidate authenticity.
- Multilingual AI Interviews – Expand interview capabilities to multiple languages, enabling global hiring and enhancing accessibility.



- Innovative AI-Powered Hiring
- AI-Powered Interviews with Virtual Avatars
- Dynamic & Real-Time Learning
- Scalable & Future-Ready

THANK YOU!

Key Features:



1

Job Description Creator

AI-driven JD creation that adapts and improves in real time based on recruiter inputs.

2

CV Analyser

Smart CV shortlisting that ranks candidates based on weighted skills and transparent & explainable AI decisions.

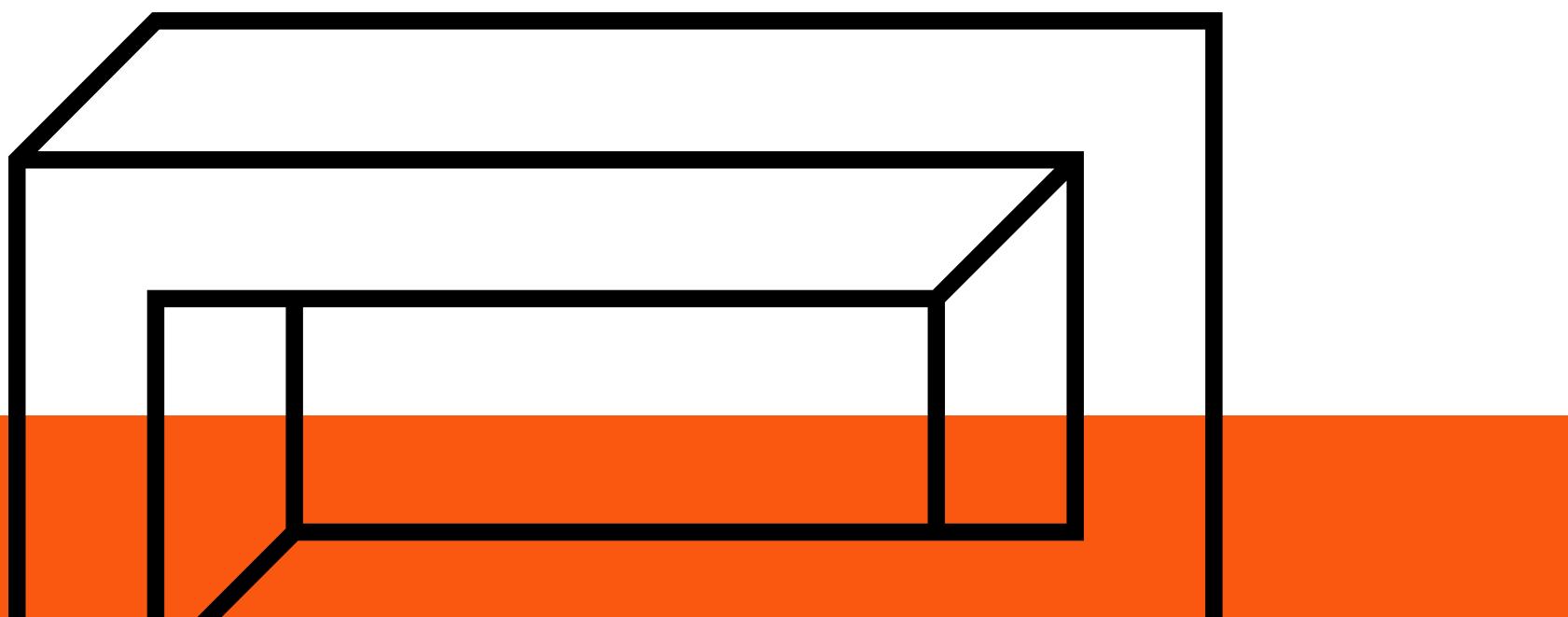
3

AI-Powered Interviews

Virtual AI-driven interview avatars ensuring unbiased and standardized candidate assessments.

Use and Functionalities

- **Simple UI** – Upload CVs, generate JDs, and conduct interviews seamlessly.
- **Customizable Hiring Flow** – Adjust weightages, refine JD criteria, and review AI explanations.
- **Fast & Scalable** – Automates bulk resume screening and shortlisting in seconds.



Use and Functionalities

- **Plug-and-Play** – Easy integration into existing HR workflows.
- **Data-Driven Insights** – Provides analytics for smarter hiring decisions.
- **Minimal Manual Effort** – Reduces recruiter workload while improving accuracy.

A Ashok Thaniyath (Presenting)

File Edit Selection View Go Run Terminal Help

RESCUE

RECRUITERAI > RECRUITERAI > static > cv_analyzer.css > top-right-icon

```
1 body {  
2     margin: 0;  
3     padding: 0;  
4     box-sizing: content-box;  
5     background-color: #252525;  
6     color: white;  
7     font-family: HELVETICA NEUE;  
8     background-image: url('../static/Mask\ Group\ 17379.png');  
9     background-size: cover;  
10    background-position: top;  
11    background-repeat: no-repeat;  
12 }  
13  
14 .top-right-icon {  
15     position: absolute;  
16     top: 10px;  
17     right: 10px;  
18     width: 50px;  
19     height: 50px;  
20     background-color: white;  
21     /* Change to desired color */  
22     border-radius: 50%;  
23     /* Makes the background circular */  
24 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS COMMENTS

```
PS C:\Users\haris\Desktop\Echolon> cd ./RECRUITERAI  
PS C:\Users\haris\Desktop\Echolon\RECRUITERAI> cd ./RECRUITERAI  
PS C:\Users\haris\Desktop\Echolon\RECRUITERAI\RECRUITERAI> python app.py  
* Serving Flask app "app"  
* Debug mode: True  
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.  
* Running on http://127.0.0.1:5000  
Press CTRL+C to quit
```

OUTLINE TIMELINE

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ENG US 6:59 AM 3/9/2025