Reducing Hiring Bias with AI

Team Veritas-Included

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Overview

Make screening qualified applicants quick, easy & inclusive

Our AI screening tool uses two AI algorithms: one, to determine the **key skills required** for a given job and two, to provide a **ranked list** of the most qualified candidates.

The AI does the work, but YOU have the control:

- Generative AI will be used to extract unbiased features from the candidates' resumes and job description.
- Recruiters have the flexibility to assign weights to different features corresponding to key qualifications of candidates.
- Our system cuts down manual labor of reviewing every resume
- The platform will provide a ranking list of qualified candidates that the recruiters can choose from.

Problem Space

Problem:

Human Bias, both explicit and implicit, can cause **qualified** candidates of certain demographics to be **overlooked**.

Opportunity:

Al-driven solutions can aid recruiters in targeting a **diverse** pool of **qualified** candidates.

Our Methodology



Research

- Objective: Understand recruiters' experiences screening resumes, including their process, challenges, and efforts toward diversity.
- Conducted semi-structured interviews with 6 recruiters.
- Conducted resume reviews with 3 recruiters.



Implementation

- Mistral 7b model used for feature extraction from job description and resume to create structured profiles
- Matching algorithm to compare candidate profiles to job requirements and rank applicants based on best match
- Project built on Python (Flask, FastAPI)



Final Deliverable

- Developed a dashboard which enables hiring managers to quickly access a diverse and ranked list of applicants based on their qualifications.
- Provided potential directions for future DEI projects based on information gained from the research.

Research Findings

01.

The resume screening process is still very manual with recruiters using filtering to parse through resumes.

02.

Technical skills tend to be the primary focus when recruiters are screening through resumes. 03.

Recruiters' strategy for being unbiased is making sure that all resumes that are submitted are screened. 04.

Job titles and skills can vary in wording within resumes even if they are describing the same thing.

05.

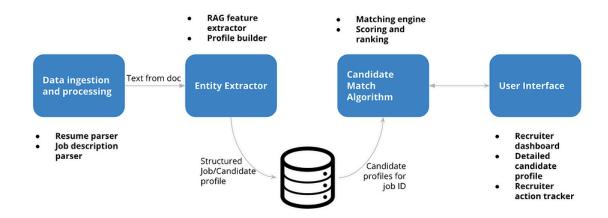
The way in which recruiters screen resumes can vary with some paying attention to different categories over others even if it is for the same position.

Our Solution

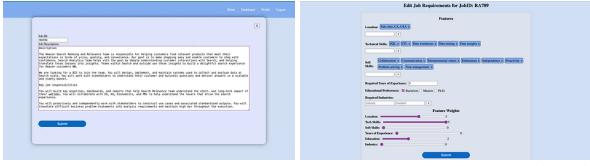
A web platform that provides a ranked list of the most suitable candidates based on criteria decided by the recruiter. Components:

- RAG based LLM to extract features from job description and candidate resume
- Intelligent and transparent algorithm that ranks candidates completely based on merit, promoting unbiased evaluation
- Flexibility to adjust feature weights/importance in the ranking algorithm based on position requirements to enhance hiring effectiveness
- Ability to track recruiter screening activity on platform to highlight unconscious bias

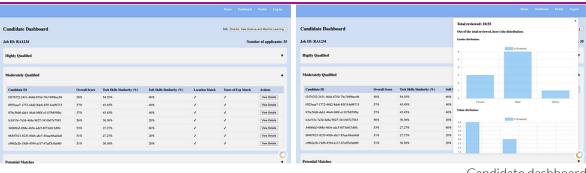
Architecture Diagram



Product



Adding a job



Candidate dashboard

Benefits



Reduce time spent on manually reviewing candidates



Allow recruiters to easily find candidates with qualifications they require



Qualified candidates of certain demographics do not get ignored



Recruiters are made aware of any unconscious bias

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