CAREER INTELLIGENCE

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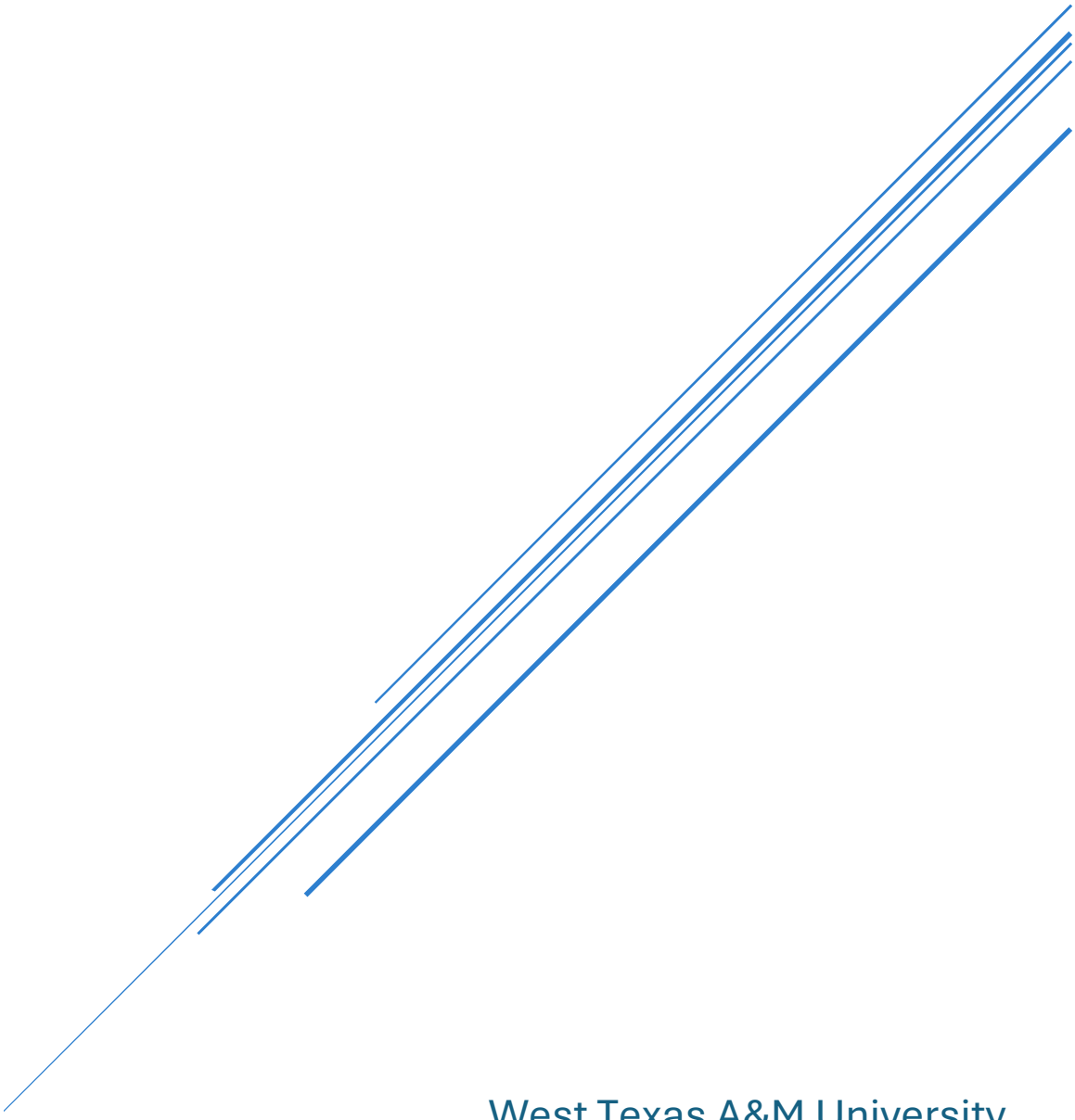

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Abstract

People that are early in their careers such as recent college graduates or people that have had their first or second jobs under their belt, may have difficulty with figuring out where to go next. They may have an end goal in mind which may constitute a specific job title, specific salary goal, etc, but they don't know the path to get there. While there are other resources that people can use to bridge this gap such as networking, but what works for one person may not work for the next person. Career Intelligence is a project idea introduced in this assignment to bridge this gap. The idea for this application takes the users current resume, career goals, and any job postings that he or she may see on the internet and uses AI to review that job and give a score of how that job is based on the users predefined goals.

Problem:

Job seekers and potentially newly graduated students may find it difficult to what they should do for their next or first job. They may have a goal in mind of what they want to do at the height of their career job wise or salary wise, but they may not know the next step(s) to achieving that goal. While one can resolve this by networking and figuring out the path from there, the issues with that are not everyone has the same networking skills, and what works for one person might not work for the next person.

Career Intelligence offers to provide its users with a clearer path of providing the next step to achieve their goals. It allows users to input their resume and career goals (desired position, salary, growth areas) and then run current job descriptions through an AI evaluator. The system produces an alignment score and explanation, helping users prioritize applications with greater confidence.

Stakeholders:

- Job seekers: People who may have a goal to achieve within their careers but need guidance on what to do next.
- New college graduates: People who need help finding clarity as to what they want to do in their careers
- HR Recruiters (and others who are looking for talent): Can use the tool to see if their job posting aligns with the type of talent they are looking for

Scope:

In-Scope:

- CRUD system where users can add job postings for the AI generator to review.
- A place to enter personal career goals (job title, salary, skills).
- AI evaluator that compares job postings that have been inputted into the system to those goals and gives a rating and short explanation.
- Basic documentation showing how the application works.

Out of Scope:

- Auto-scraping jobs from Indeed/LinkedIn.

- Tailoring resumes and cover letters automatically.
- Updating any social media profiles such as LinkedIn and/or Indeed.

Success Metrics:

- Usability: Users can add any amount of job descriptions and run evaluations without errors.
- Clarity: Over 80% of the AI outputs are accurate or relevant
- Transparency: Users can view/edit their goals within the web interface
- Reliability: Application works consistently across multiple sessions and saves previous inputs.

Minimal Viable Artifact (MVA):

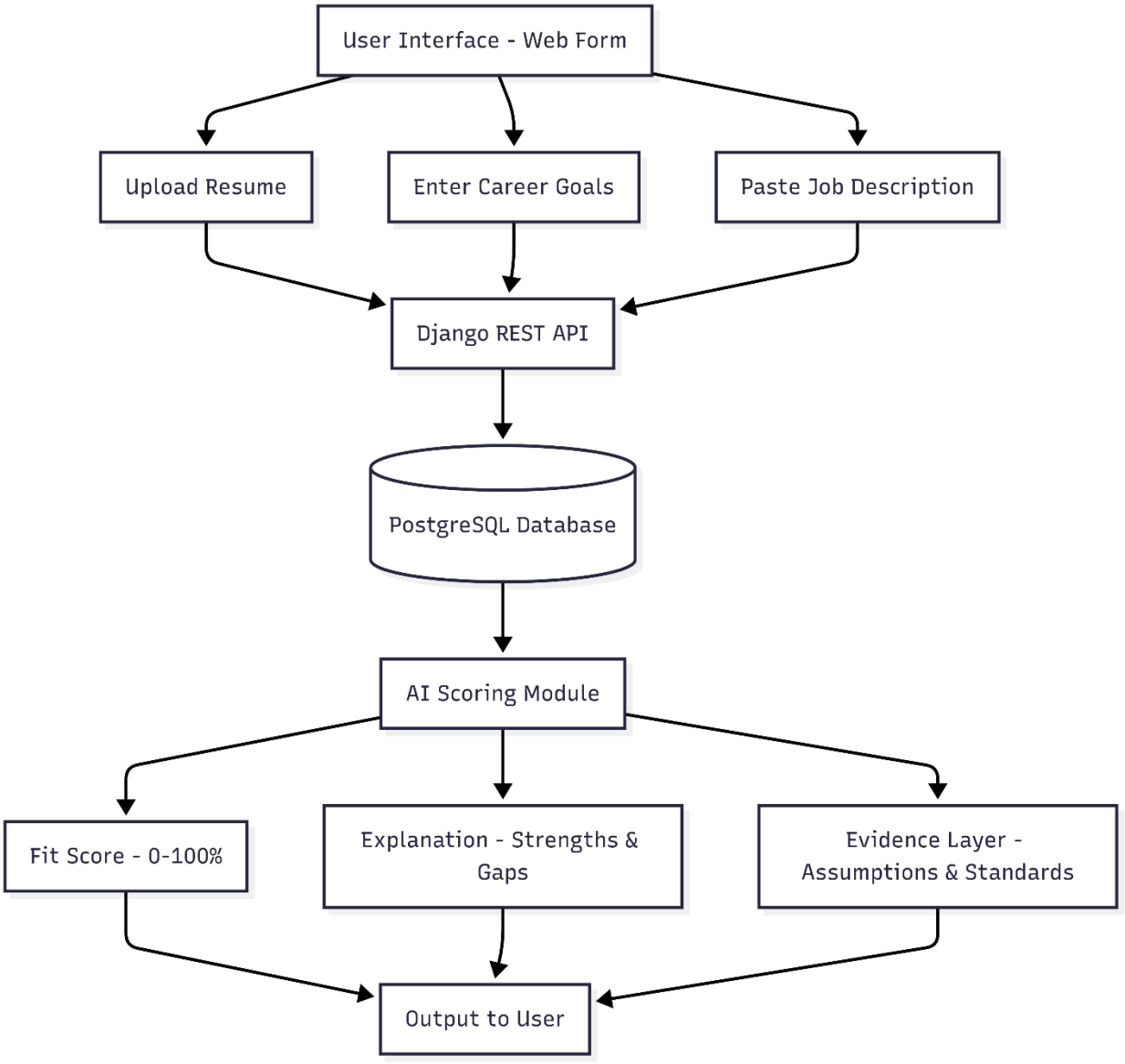
1. The CRUD for inputting career goals, resume, job descriptions.
2. The Postgre SQL Database.
3. AI evaluation producing score + explanation.

Iterative Design Approach:

The iterative design approach focuses on splitting the project into three parts as seen in the system sketch. For all three parts, it will follow the same structure pattern of Planning and Designing, Implementation, Testing and Evaluate, and Refine. Then it will repeat back to Planning and Designing.

The three parts of the iterative design that follow the pattern mentioned above are the user interface which allows the user to upload their resume, enter career goals, as well as any job descriptions they have found online. After this all flows into the Django API, next is the Postgre SQL database to store all of the data. The third leg is the AI scoring module that gives feedback to the user about whether the job aligns with their goals.

System Sketch:



Sketch contains the diagram of how Career Intelligence system works. It starts at the top with the web user interface for the user to input the information below it on the chart. The information is then carried through the rest of the chart until it reaches the output at the bottom of the sketch.

Evidence Base:

Sweeney, Erica. “How Hiring Managers Are Grappling with AI Job Applications.” CO, 27 July 2025, www.uschamber.com/co/run/human-resources/hiring-ai-job-applications.

CHEW, ZI QING, and NOR FAZLIDA MOHD SANI. “AI-POWERED JOB APPLICATION MANAGEMENT FOR APPLICANTS.” Journal of Theoretical and Applied Information Technology , 31 July 2025, www.jatit.org/volumes/Vol30No1/4Vol30No1.pdf.

“How AI Is Reshaping Career Pathways.” The Washington Center, 13 Aug. 2024, resources.twc.edu/articles/how-ai-is-reshaping-career-pathways.

“How Ai Is Changing Recruitment.” BCG Global, BCG Global, 21 Jan. 2025, www.bcg.com/publications/2025/ai-changing-recruitment.

Risk Register:

Risk	Likelihood	Impact	Mitigation
AI review of the job can be inaccurate to the users goals	Medium	High	Utilize the AI to look out for keywords in the job description and users resume before expanding
Users personal information could get leaked if on the resume by AI	Low	High	Use a secure PostgreSQL server with encryption to make it tougher for attackers to break into
AI models may be biased towards positions and ranking certain positions over others	Low	Medium	Regularly audit the training data by performing test runs on the AI module