

AI-Powered Career Companion

Capstone Project - Group 3

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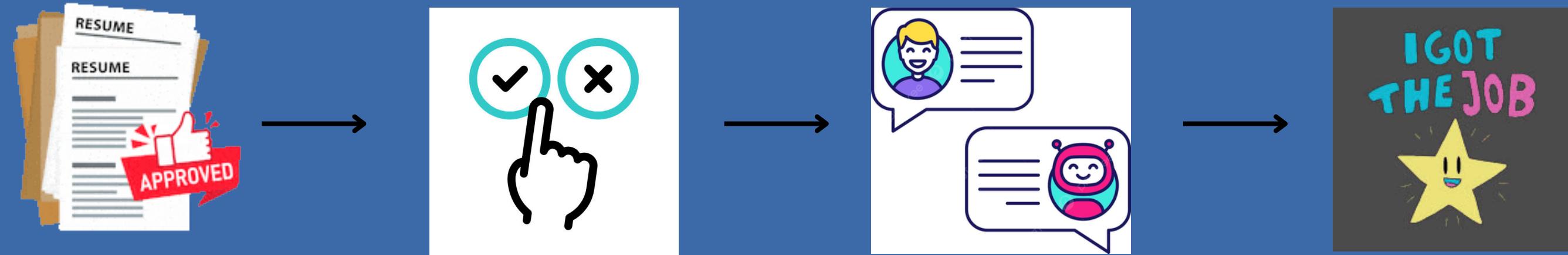
Our Vision

Bridging the Gap in Job Search Efficiency

- *Job Market Challenges*: Job seekers struggle to optimize their profiles efficiently.
- *Application Process Issues*: Tailoring resumes, applying and preparing for interviews is overwhelming.
- *AI-Powered Solution*: Our platform streamlines job search with resume tailoring, job tracking and mock interviews.
- *Smarter Job Applications*: AI helps candidates apply effectively, track progress and interview confidently—all in one place.

Our Mission

“ One-Stop Solution for Tailored Resumes, Job Tracking and Mock Interview Prep ”



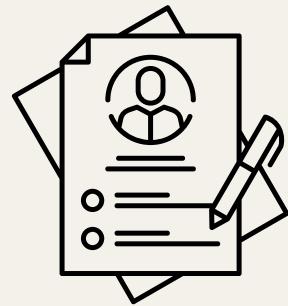
Market Need:

- According to research, 80% of resumes are rejected by ATS due to poor optimization.
- 70% of job seekers apply to multiple roles but struggle with tracking applications effectively.
- Most applicants face challenges with interview preparation, lacking structured feedback and realistic practice scenarios.

Why now?

- The job market is increasingly competitive, with recruiters using AI-driven Applicant Tracking Systems (ATS) to filter resumes.
- AI-driven career tools are in high demand to improve hiring success.

Project Goals



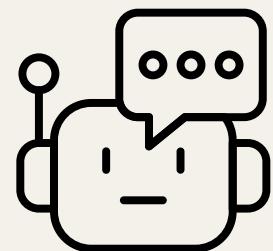
AI Resume Tailoring

Auto-generates ATS-optimized resumes.



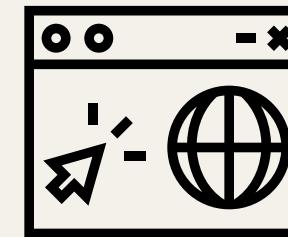
Job Tracking

Manage applications and statuses in one place.



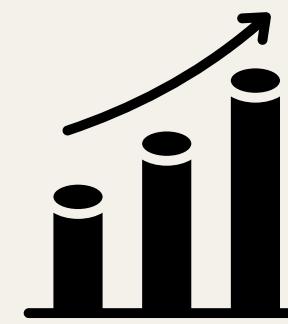
AI Interview Prep

Chatbot for real-time mock interviews.



Seamless Web Experience

Easy access and resume management.



Efficient & Scalable

AI-powered, secure, and cloud-based.

Users and Features



Job Seekers & Students

AI-driven resume enhancement & interview prep.



Career Coaches & Mentors

Provides AI-powered resume & interview insights.



Universities & Institutes

Supports career counseling & large-scale analysis.



AI Resume Builder

Enhances resumes with AI-driven suggestions.



Resume Tracker

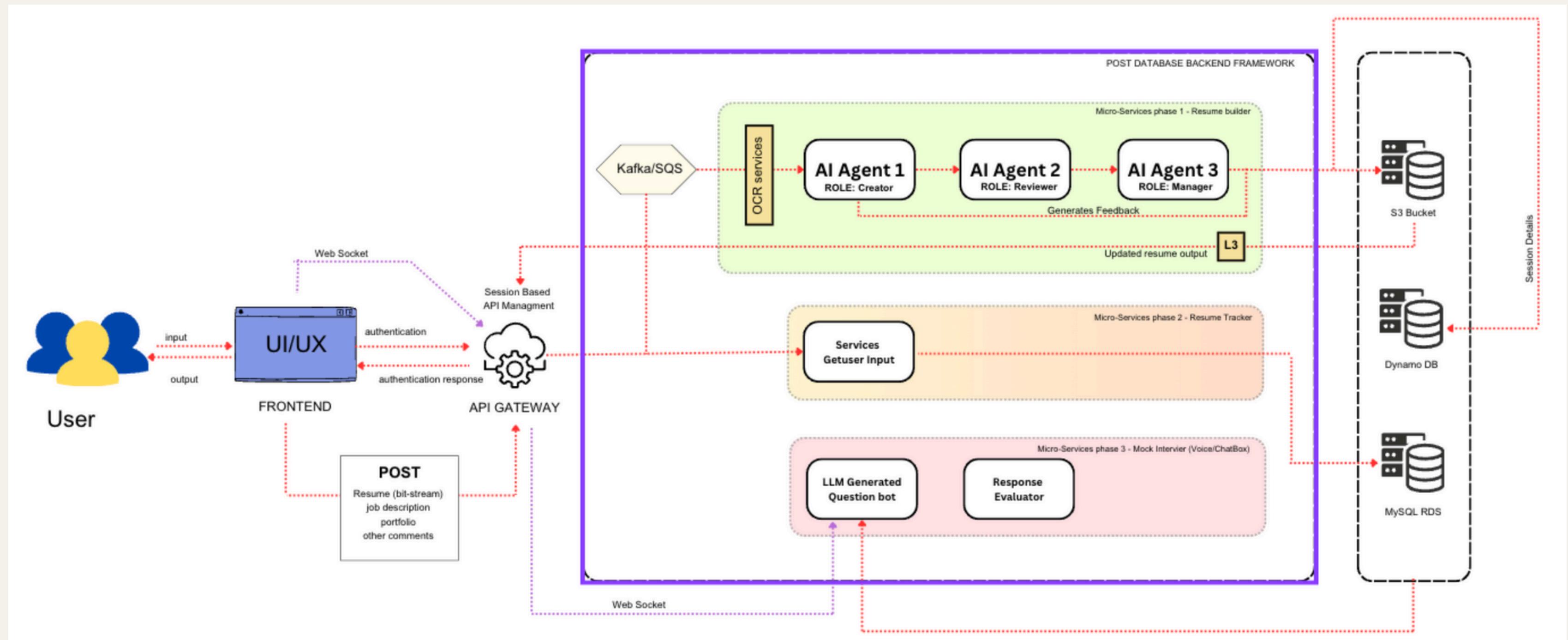
Monitors job applications & recruiter responses.



AI Mock Interview

Generates & evaluates interview questions.

System Architecture



Project Scope



- **User Interface & Experience** – Interactive, real-time dashboard for resumes & interviews.
- **Resume Submission** – Upload resumes, job descriptions, and portfolios.
- **Mock Interview Interface** – AI-generated questions & response recording.
- **WebSockets for Live Updates** – Enables real-time feedback.
- **Secure API Integration** – Ensures data exchange & authentication with backend.

- **API Gateway & Authentication** – Manages user sessions and access control.
- **Microservices Architecture** – Handles resume processing, tracking & interviews.
- **Database Management** – Stores resume data, interview responses, and user progress.
- **Event Processing & Messaging** – Uses Kafka/SQS for real-time data streaming.
- **Security & Scalability** – Optimized for high-load processing & secure transactions.

- **AI-Powered Resume Processing** – AI agents analyze & refine resumes.
- **LLM-Generated Mock Interviews** – Personalized Q&A session based on job descriptions.
- **OCR & NLP for Resume Parsing** – Extracts key details from uploaded resumes.
- **Cloud Storage & Compute** – S3 for document storage, SageMaker for AI models.
- **Security & Access Control** – Role-based access & encryption mechanisms.

Tech Stack Overview

1. Frontend: React, TypeScript, TailwindCSS, Redux/Context API
2. Backend: FastAPI, OpenAI API, WebSockets
3. Database: MySQL RDS, DynamoDb, Faiss
4. Resume Parsing: PyMuPDF, docx2txt, SpaCy5.
5. Messaging Queues: AWS SQS
6. AI Resume Optimization: OpenAI GPT, Langchain
7. Cloud Storage & Deployment: AWS services for hosting (AWS Lambda, S3)



Thank you!

Lets Begin The Q&A Now