AI Career Counselor

Abstract

The AI Career Counselor Web Application is an intelligent and multilingual platform designed to provide personalized career guidance, resume analysis, and skill-based recommendations using advanced artificial intelligence. This web-based system assists students and professionals in exploring suitable career paths, refining resumes, and receiving job-oriented advice through text, image, and voice-based interactions. It leverages cutting-edge technologies such as Natural Language Processing (NLP), Optical Character Recognition (OCR), Speech Recognition (ASR), Text-to-Speech (TTS), and Gemini LLM to deliver contextual, human-like, and real-time responses.

The AI Career Counselor dynamically interprets user queries, analyzes uploaded resumes or job descriptions, and provides personalized suggestions for career development and skill enhancement. The system also adapts to user preferences and supports multilingual interaction, ensuring inclusivity for users from diverse linguistic backgrounds. It further enables report generation, offering downloadable insights and references for future career planning.An Admin Panel can be integrated to manage user data, career resource modules, and skill-based content for scalability and effective system maintenance. The project demonstrates the practical integration of AI technologies with career counseling, creating an innovative, accessible, and interactive approach to digital career guidance.

This project is designed to:

- Deliver AI-powered career counseling and skill recommendations.
- Support multimodal interaction — text, image (resume/job description), and voice.
- Offer multilingual communication for inclusive user engagement.
- Provide real-time, context-aware responses using Gemini LLM.
- Generate structured and downloadable career advice reports.
- Enable seamless voice interaction through ASR and TTS.

Additional Features:

1. **Resume Analyzer** – Extracts and evaluates key information from resumes using OCR and NLP for improved recommendations.
2. **Voice-Interactive Counseling** – Enables real-time, conversational career guidance through speech input and AI-generated speech output.
3. **Career Report Generator** – Allows users to export personalized career advice and recommendations as text or PDF reports for future reference.