AInterviewer

AI Interview Simulator

User Manual

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1. Introduction

The AInterviewer is an Android-based interactive system designed to help students prepare for internship and job interviews through realistic, AI-driven conversation. In recent years, as recruitment processes increasingly emphasize behavioral and technical interviews, many students experience anxiety or lack structured opportunities to practice. This system was developed to address that need by offering an accessible, automated, and personalized mock interview environment. By combining multi-threaded processing, natural language interaction, and automated evaluation, the AI Interview Simulator provides a scalable method for supporting students in their interview preparation. The system aims to help users develop greater confidence, improve communication skills, and better understand employer expectations in a modern recruitment context.

2. System Overview

The system consists of three modules:

- Initial Setup & Input Module

- ✧ Upload résumé file (PDF, DOCX).
- ✧ Enter job description.
- ✧ Select interview language (Chinese / English).
- ✧ Validate input before interview starts.

- AI Chat Interface Module

- ✧ Real-time conversational interview.
- ✧ AI asks questions automatically through Coze API.
- ✧ User answers through text input.
- ✧ Keyboard-aware layout adjustment for optimal UX.
- ✧ "End Interview & Generate Report" button.

- Report Generation Module

- ✧ Collects full chat history.
- ✧ Sends the transcript to *Coze* for evaluation & feedback.
- ✧ Generates a TXT report file stored locally.
- ✧ Displays a notification allowing the user to open the file immediately.

3. System Requirements

Hardware: Android phone or emulator with 3GB RAM.

Software: Android 8+, Android Studio, Coze API Key, Internet connection.

4. Installation Guide

1. Download the project ZIP.

2. Open in Android Studio.

3. Insert your Coze PAT.

4. Connect device / start emulator.

5. Run the application.

Or simply use the apk file generated in Android Studio.

5. Using the Application

The application allows users to upload their resume, specify job requirements, and participate in a real-time interview conducted by an AI interviewer. The AI generates questions dynamically based on the user's background and the target position, enabling a practice experience that closely resembles real-world interview scenarios. Throughout the conversation, the system captures the dialogue and, upon completion, automatically generates an interview report summarizing performance and providing improvement suggestions.

Details

1. Open the AInterviewer.

2. Upload a resume. Permitted file range: pdf/docx/txt.
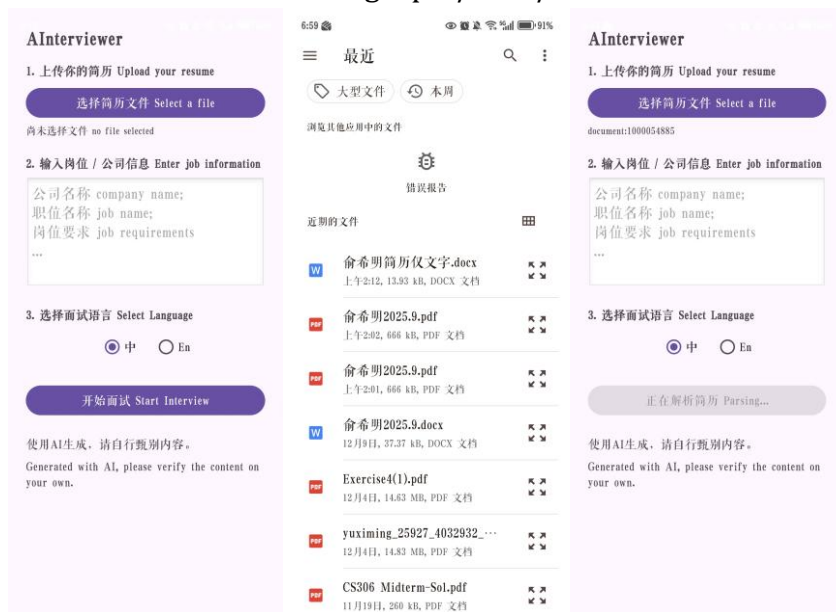
3. Enter the job description: Company name/Position name/Requirements. More detailed information will be better. The Coze AI will also search for more information online.

4. Select a language as the interview language.
5. Check information and start interviews.
6. The AInterviewer will keep asking questions automatically. Answer to the questions in the way how one chat with other ChatGPT-like tools.

7. When want to end up the interview, click the End button at the bottom of the screen. The app will automatically start to generate a feedback txt file, which will record the complete conversation and a structured feedback given by the AI interviewer.
8. When the file is prepared, a notification will appear in the message bar, click to view the report and save it.
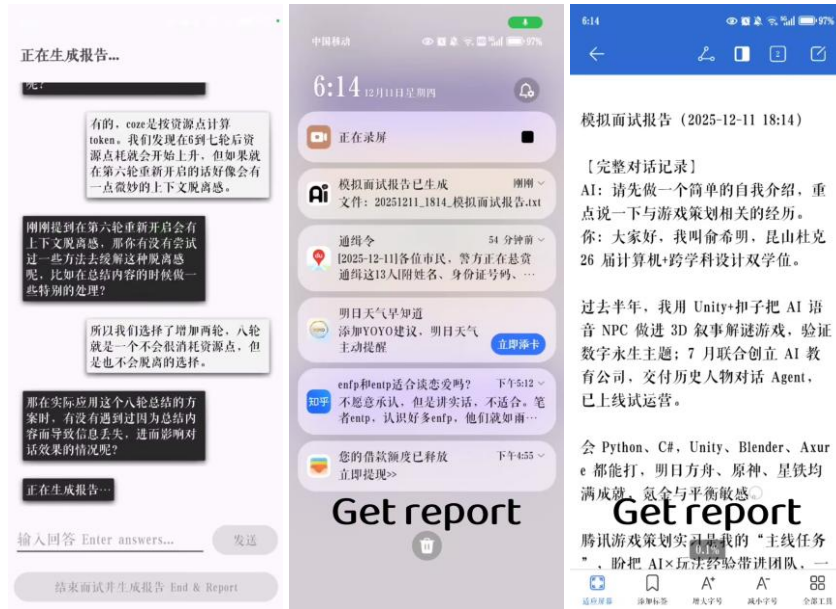
6. Multithreading Design

The application assigns tasks across threads to ensure responsiveness.

Component	Thread Used	Reason
File reading & text extraction (PDF/DOCX)	Background Thread (Coroutine / Executor)	Prevents UI blocking during file parsing
Coze API communication	OkHttp background threads	Network operations must not block main UI thread
Chat UI updates	Main thread (Handler / runOnUiThread)	Ensures safe access to UI components
Keyboard layout recalculation	Main thread	Maintains smooth UI rendering

7. Error Handling

The application handles invalid file formats, network issues, parsing errors, and API failures gracefully. The system includes several defensive mechanisms:

◆ Invalid resume format → Non-blocking error message

- ◆ Empty job description → Button disabled
- ◆ Missing network → API callback returns "Network Error"
- ◆ Empty AI output → Fallback message displayed
- ◆ JSON parsing failures → Logged + shown in chat bubble
- ◆ All failures are handled gracefully, ensuring the app never crashes unexpectedly.

8. References

Guides and Tools

Coze AI API Documentation. https://www.coze.cn/open/docs/guides

Android Developers Documentation. https://developer.android.com

OkHttp Networking Library. https://square.github.io/okhttp

Apache PDFBox Library. https://pdfbox.apache.org

Apache POI Library for DOCX. https://poi.apache.org

9. Conclusion

This AI Interview Simulator provides an interactive and efficient solution for practicing job interviews. Through the use of asynchronous architecture, Coze AI integration, and automatic report generation, the system delivers a smooth and realistic interview experience. The multi-threaded design ensures stable performance, while the report function offers actionable feedback for career improvement.

This manual should provide enough detail for end-users, reviewers, and maintainers to operate and evaluate the system effectively.