

Step-by-Step Guide to Set Up and Run ResuWhisper AI (Installing Libraries via Python)

Overview

ResuWhisper AI is a voice-based resume-building application developed using Python and Streamlit. It leverages Google's Gemini API for transcription and content generation, records audio, and generates professional resumes in Word or PDF formats. This guide provides a comprehensive step-by-step approach for setting up the environment, installing dependencies, and running the project locally.

Step 1: Prerequisites

Before proceeding, ensure the following prerequisites are met:

1. Python 3.8 or Higher
 - Download from python.org.
2. Git (Optional)
 - Used for cloning repositories and version control. Download from git-scm.com.
3. A Text Editor or IDE
 - Recommended: Jupyter Notebook, Visual Studio Code, or Notepad++.
 - This guide demonstrates setup using Jupyter Notebook.
4. Google API Key
 - Sign up for a Google Cloud account, enable the Gemini API, and obtain an API key from Google Cloud Console.
 - Replace the placeholder `Google_API_Key` in `app.py` with your actual key.
5. System Requirements
 - A microphone for recording.
 - An internet connection for API calls.

Step 2: Set Up Your Project Directory

1. Create a Project Folder
 - Create a folder named ResuWhisperAI (e.g., `C:\ResuWhisperAI` on Windows or `~/ResuWhisperAI` on macOS/Linux)
2. Save the Main Code
 - Copy the provided Python code into `app.py` and save it inside ResuWhisperAI.
3. Create a Setup Script

Create `setup.py` in ResuWhisperAI and add the following code:

```
import subprocess
import sys
```

```

required_libraries = [
    "streamlit",
    "google-generativeai",
    "sounddevice",
    "numpy",
    "python-docx",
    "docx2pdf",
    "reportlab"
]

def install_libraries():
    print("Installing required libraries...")
    for library in required_libraries:
        try:
            subprocess.check_call([sys.executable, "-m", "pip", "install", library])
            print(f"Successfully installed {library}")
        except subprocess.CalledProcessError as e:
            print(f"Error installing {library}: {e}")
    print("Library installation complete!")

if __name__ == "__main__":
    install_libraries()

```

- Save setup.py.

Step 3: Set Up a Virtual Environment

1. Create a Virtual Environment:
 - `cd path/to/ResuWhisperAI`
 - `python -m venv venv`
2. Activate the Virtual Environment
 - Windows: `venv\Scripts\activate`
 - macOS/Linux: `source venv/bin/activate`
 - The terminal prompt should now show `(venv)`.

Step 4: Install Required Libraries

1. Install Jupyter Notebook: `python -m pip install jupyter`
2. Launch Jupyter Notebook
3. Create jupyter notebook
4. Run the Setup Script in Jupyter Notebook

- Create a new notebook and run: %run setup.py
 - Alternatively, upload setup.py and execute it.
- 5. Verify Installation
 - If errors occur, check the library name and retry installation.

Step 5: Configure the API Key

1. Open app.py and locate:
 Google_API_Key = "Your-API-Key"
2. Replace with your actual key and save the file.

Step 6: Add the Logo Image

1. Ensure resuwisper.jpg exists in the project folder.
2. Update the image path in app.py if needed.

Step 7: Run the Application

1. Start the Streamlit Server
 streamlit run app.py
2. Access the App
 - Open <http://localhost:8501> in a browser.

Step 8: Troubleshooting

1. "ModuleNotFoundError"
 - Ensure setup.py executed successfully.
 - Activate the virtual environment before running Jupyter
2. API Key Errors
 - Double-check API key validity and permissions.
3. Audio Recording Issues
 - Check microphone permissions.
4. PDF Conversion Fails
 - Ensure docx2pdf is installed.
5. General Errors
 - Update pip with:
 subprocess.check_call([sys.executable, "-m", "pip", "install", "--upgrade", "pip"])

Step 9: Customize and Enhance

- Add More Templates: Modify generate_*_resume in app.py.
- Improve UI: Adjust CSS in st.markdown.

- Database Integration: Replace users_db with SQLite or another database.

Step 10: Shut Down the App

1. Stop the Server: Ctrl+C
2. Deactivate the Virtual Environment: deactivate

Sample Execution Flow

1. Create ResuWhisperAI folder.
2. Save app.py and setup.py.
3. Open terminal: cd C:\ResuWhisperAI
4. python -m venv venv
5. venv\Scripts\activate (Windows) / source venv/bin/activate (macOS/Linux)
6. python -m pip install jupyter
7. jupyter notebook
8. Run %run setup.py in Jupyter.
9. Edit app.py with API key and image path.
10. streamlit run app.py
11. Open http://localhost:8501 in a browser.

Notes

- The app's date is hardcoded to March 31, 2025.
- Ensure disk space for temporary files.
- This guide is for local setup; deploy separately if needed.