| **📦 Package Name** | **🧪 Installation Code** | **💡 Purpose in Project** |
| --- | --- | --- |
| pyttsx3 | pip install pyttsx3 | Offline text-to-speech (TTS) engine |
| speechRecognition | pip install SpeechRecognition | Converts voice input to text |
| pyaudio | pip install pyaudio | Audio stream input from microphone |
| pvporcupine | pip install pvporcupine | Wake word detection ("Friday") |
| keyboard | pip install keyboard | Detects keyboard events (start/stop voice input) |
| pyautogui | pip install pyautogui | GUI automation (mouse clicks, typing) |
| pygetwindow | pip install pygetwindow | Window focus/position management |
| psutil | pip install psutil | System info (CPU, RAM, battery) |
| requests | pip install requests | API calls (e.g., weather) |
| appopener | pip install appopener | Open desktop applications via voice |
| pycaw | pip install pycaw | Control system volume on Windows |
| comtypes | pip install comtypes | COM interface access (used by pycaw) |
| pywin32 | pip install pywin32 | Windows system/COM API support |
| pygame | pip install pygame | UI animation (face images, subtitles) |
| pillow | pip install pillow | Image handling (used by animation) |
| spotipy | pip install spotipy | Spotify Web API control |
| opencv-python (optional) | pip install opencv-python | (Future) For camera/video processing |
| numpy (optional) | pip install numpy | Required by OpenV, also for math/logic |
| flask (optional) | pip install flask | (Future) Web interface or REST API |