J.A.R.V.I.S., A Personal Voice Assistant

Ellie Park, Nate Eubanks
University High School, St. Margaret’s Episcopal School

Other Work
- Trivia Host: It is able to continuously give trivia questions and provide not only the correct answer, but to give the degree of accuracy.
- Translator: It is able to translate what is said/typed to any language and answer it in the preferred language. We could change the personality and mannerisms of ChatGPT and have specific styles of speaking.

J.A.R.V.I.S the Voice Assistant
Describe what it does / Customizations:
- Changed the “system_prompt” to fit JARVIS and the voice from default Carla to Onyx
- Jarvis is able to tell you the local time, describe the weather, search for locations, read the news, and change the color of LED lights.
- It also sometimes tells the user funny jokes
- We also added a function for Trivia; when User says “JARVIS Trivia,” it continuously provides trivia questions and answers.
- There is a Translate feature; when User says “JARVIS Translate,” it has a continuous conversation with the user in a specific language
- There is a Therapist feature; when User says “JARVIS Be my therapist,” JARVIS becomes a therapist and asks the user how they are, how they are feeling, etc. and holds a conversation, trying to be sympathetic and serious

System Design and Implementation
from voice_assistant_lib import *
init_voice_assistant({
    "api_key": "sk-abc...(YOUR API KEY)",
    "wakewords": ['Jarvis'],
    "system_prompt": "Your name is JARVIS from Iron Man, a voice assistant. Be witty and sarcastic, efficient and concise. Have a male and somewhat robotic voice. ",
})

while True:
    audio_in = listen()
    user_prompt = speech_to_text(audio_in)
    print("Prompt: ", user_prompt)
    if verify_wakeword(user_prompt):
        response = chat(user_prompt)
        print("Response: ", response)
        audio_out = text_to_speech(response)
        play(audio_out)

Background
Privacy, AI, and IoT things matter for a lot of reasons. Privacy can determine your safety and protection of your information, for example what of yours gets captured and released online. AI has so many unexplored possibilities that can better the lives of many around the world.

Discussion / Future Work
The voice assistant can sometimes be inaccurate and hallucinate, since it’s based on ChatGPT, which may spread some false information.

Acknowledgments
Thank you to ProperData staff!