**Voice Bridge - Instructions on accessing the program**

Note: This can be a resource-intensive application. The entirety of this program runs locally and requires a computer of relative modernity at a minimum. Optimal performance can be achieved on a machine with a dedicated NVIDIA GPU/Apple M-series chip, but it is not necessary to work, and can run at practical speed with a newer x86 CPU.

Most of the performance bottleneck comes from text-to-speech model generations. Please disable this feature via app interface if there are performance issues. TTS is not recommended on machines without a cooling fan.

The program has been tested beforehand on the following machines:

* Apple MacBook Pro (16-inch, 2021) with Apple M1 Pro chip (10-core CPU/16-core GPU)/16GB RAM, running macOS Sonoma
* Most powerful – Custom Desktop Tower (built 2020) with Intel Core i9-9900K (8-core) CPU/NVIDIA RTX 2060 12GB GPU/16GB RAM, running Windows 11

**To open the program:**

* Locate and launch python\_pipeline.py in an IDE where the entire folder can be opened (recommend Visual Studio Code, as it was used for the entirety of application development)
  + This application utilizes the Flask Python package as the website’s server backend. Flask should be installed on the machine running the program (`!pip install Flask` in console, )
* Run run\_full\_website.py script. Make sure Python virtual environment has all necessary packages
  + This application will automatically install all necessary packages via a function defined in a module script, package\_manager.py.
    - Packages used to date: [sqlite3, flask, sentence\_transformers, bark]
    - Installation of text-to-speech and text-generation models [pythia-70m, bark] may take several minutes, requires a fast internet connection, and ~20GB of storage
  + After all packages are installed (keep track of console to see progress), the server should be running. This might take a few minutes.
  + Access the program via this link: <http://127.0.0.1:5000/>. You should now be viewing the main application page
* If it is not possible for the full website to be launched (takes too long to install/initialize necessary libraries, like language models, or does not work for computer), run run\_basic\_website.py to access version of website without chatbot/AI functionality
  + This application will automatically install only basic libraries necessary for accessing the server via package\_manager.py.
    - After all packages are installed (keep track of console to see progress), the server should be running. This might take a few minutes.
  + Access the program via this link: <http://127.0.0.1:5000/>. You should now be viewing the main application page