Streamlit + PyInstaller

First, if you want to learn more about PyInstaller an excellent video is: <https://www.youtube.com/watch?v=S_Bus_FNjpg>

The first observation is that we must install the llamcpp library by cloning the git. You can find more information about in this thread https://github.com/ggerganov/llama.cpp/issues/2558.

After, we must alter the streamlit library files so we can use it with PyInstaller. The step by step can be found at <https://github.com/jvcss/PyInstallerStreamlit/tree/master>. More information about this problem can be found at <https://discuss.streamlit.io/t/using-pyinstaller-or-similar-to-create-an-executable/902>.

Basically, we need to include this function inside the file cli.py in \site-packages\streamlit\web:

#------------------------------------------------------------------------------

# Necessary to use PyIntaller

def \_main\_run\_clExplicit(file, command\_line, args=[],flag\_options={}):

    main.\_is\_running\_with\_streamlit = True

    bootstrap.run(file, command\_line, args,flag\_options)

#------------------------------------------------------------------------------

We won’t need to run PyIntaller twice as in these guides. We will add all the spec modifications in the hook folder.

We will add two files with hooks. One for the streamlit and another one for llamacpp. Remenber to fix the paths to your system.

We also need to add this configuration folder .streamlit

Finally, we must use pyinstaller command with the options:

* additional-hooks-dir
* paths
* collect-data

Here is the full command:

pyinstaller --onefile --additional-hooks-dir=./hooks main.py --clean --paths C:\\Users\\014206631\\AppData\\Local\\miniconda3\\envs\\llamaChat\\Lib\\site-packages --collect-data=langchain --collect-data=langchain\_community --collect-data=llama\_cpp --icon=”META & Microsoft Team Up on LlaMA 2.ico”

If you have a virus detection problem running pyintaller, you can add your project folder as an exception from the windows virus check: <https://support.microsoft.com/en-us/windows/add-an-exclusion-to-windows-security-811816c0-4dfd-af4a-47e4-c301afe13b26#:~:text=Go%20to%20Start%20%3E%20Settings%20%3E%20Update,%2C%20file%20types%2C%20or%20process>.

tart -> Settings -> Privacy & Security -> Windows Security -> Virus & threat protection

manage settings -> exclusions -> add or remove exclusions

add your project folder

You new application will be created in the dist folder. Now you must copy all the dependencies to this folder:

* .treamlit
* models
* QR Code PayPal.png
* streamlit\_llama2.py

Finallyy, let’s see how to convert all these files in only one executable.

The program used to make the installer is Inno Setup (<https://jrsoftware.org/isdl.php>). If you watch any of the videos, you will see that its use is easy.

A quick guide can be found at: <https://www.youtube.com/watch?v=5U-nBAfbSek> (Portuguese), <https://www.youtube.com/watch?v=nUa4f3sn5Xo>, and <https://www.youtube.com/watch?v=qKh6gAxrahs>.