

- 1) Open the Terminal app. Determine the path to the GliomaToolV1 folder in File Explorer. Paste the following command into the terminal to navigate to the folder.

```
cd path/to/GliomaToolV1
```

- 2) To check if you are in the right folder, type the following command.

```
ls
```

The result should show the same files listed below.

```
avnith@Avniths-MacBook-Air GliomaToolV1 - Copy % ls
app.py          models          requirements.txt  static          templates        testImages
avnith@Avniths-MacBook-Air GliomaToolV1 - Copy %
```

- 3) You will need to have Python 3 and pip already installed on your computer. To run GlioGrade, install all necessary packages with

```
pip install -r requirements.txt
```

- 4) Paste the following command to start running the Flask app

```
flask --app app.py run
```

This may take a minute, but the result should look like this:

```
avnith@Avniths-MacBook-Air GliomaToolV1 - Copy % flask --app app.py run
/Users/avnith/Desktop/GLIO/GliomaToolV1 - Copy/.venv/lib/python3.9/site-packages/urllib3/_init_.py:35: NotOpenSSLWarning: urllib3 v2 only supports OpenSSL 1.1.
1+, currently the 'ssl' module is compiled with 'LibreSSL 2.8.3'. See: https://github.com/urllib3/urllib3/issues/3020
  warnings.warn(
WARNING:absl:Compiled the loaded model, but the compiled metrics have yet to be built. `model.compile_metrics` will be empty until you train or evaluate the mode
l.
* Serving Flask app 'app.py'
* Debug mode: off
INFO:werkzeug:WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on http://127.0.0.1:5000
INFO:werkzeug:Press CTRL+C to quit
```

- 5) Copy the URL that is given in the output of the previous command. In the image above, it is <https://127.0.0.1:5000>. Open a new browser tab and navigate to this page. You should see this screen.

# Glioma Detection Tool

Upload T1 and T2 MRI scans to detect glioma types and grades

Upload T1 MRI Image:

Choose File No file chosen

Upload T2 MRI Image:

Choose File No file chosen

Analyze Scans

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- 6) To use this tool, upload an axial slice of an MRI scan. Note that you will need to upload both a T1 and T2 MRI image. Select Analyze Scans to view the results.
- 7) There are sample images given in the `testImages` folder which you can use. Any uploaded MRI images and before and after processing will be stored in the `static` folder.
- 8) To exit the app, go back to the terminal and press `Ctrl + C` to stop running the Flask app. All uploaded MRI images will be deleted from the `static` folder.