**RUNNING THE CODE IN LOCAL COMPUTER USING TUNELLING**

Install Ubuntu

Open one Ubuntu terminal and run redis-server:

redis-server

Open second Ubuntu terminal, navigate to the required directory and run redis rq worker

cd /mnt/d/GitHub\_clones/Drawscapes\_URBAN

rq worker

Open a third Ubuntu terminal, navigate to the required directory and run Drawscapes py

cd /mnt/d/GitHub\_clones/Drawscapes\_URBAN

python3 drawscapes.py

To run tunnel, open CMD terminal, navigate to Ngrok folder and run ngrok on the server node to be exposed (5000 default node of flask):

cd C:\Users\Chiquitins\Desktop\ngrok (or local folder where ngrok.exe is stored)

ngrok http 5000

The first time installed in a computer, before running the tunnel run the command below in order to ensure the session remains indefinitely open:

ngrok authtoken 1OrUhh5oklhUiVUFcB73pAX2zsn\_58sS8QuWCk59Ct9ZWsNbH

For permanent redirect through website:

ngrok http -region=eu -hostname=drawscapes.com 5000

Copy the link provided by ngrok and add the /index to the end

http://##############.ngrok.io/index

Go to www.godaddy.com

* Customer Number: 234244887
* Pas: Carranza\_01

Go to forward website into ngrok link so that it can be accessed from www.drawscapes.com

Dependencies

* Numpy
* opencv-python
* keras
* tensorflow
* netwrorkx
* json
* Pillow
* Scipy (do after Pillow otherwise throws an error somewhere down the line)
* scikit-image
* sklearn
* tinydb

**WORKING WITH COOKIES**

One option to improve separation between sessions is to seed a cookie in the browser and retrieve it whenever is required. So far it is no needed since the “session” option seems to be working, but worth keeping in mind

@app.route('/drawscapes')

def drawscapes():

# passes session number to browser as cookie 'session\_number'

res = make\_response("Setting a cookie")

res.set\_cookie('session\_number', variable, max\_age=60\*60\*24\*365\*2)

return render\_template ('drawscapes.html',

title = 'network design for session ' + session['user'])

@app.route('/data/<filename>')

def data(filename):

session = request.cookies.get("session\_number") # use to retrieve cookie from browser

target\_directory = 'data/' + session['user']

return send\_from\_directory(target\_directory, filename)

**WORKING WITH GTHUB FROM PYTHONAYWHERE**

Open a bash console

Navigate to the folder

cd /home/soyduardorico/deploy/Drawscapes\_URBAN-LIGHT

To send any changes to Gitub from pythonanywhere

Add all files first

git add .

Commit

git commit -m "describe what you did"

Send files

git push origin master

To download any changes in the repo into the pthonanywhere environment

git pull <https://github.com/soyeduardorico/Drawscapes_URBAN-LIGHT.git>

In case all files in pythonanywhere have been deleted the files can be cloned from bash:

git clone https://github.com/soyeduardorico/Drawscapes\_URBAN-LIGHT.git