

Software-notes

February 13, 2024

1 Software used

1.1 Create environment

```
[ ]: # install python3 from python.org
# check python version
python3 -m pip --version

# install Git: https://git-scm.com/download/mac

# install jupyter lab: https://jupyter.org/install
pip install jupyterlab
# Launch jupyterlab
jupyter lab # jupyterlab will open in a web browser, local files will be ↵
↪available

# Install libraries
# install OpenCV: https://opencv.org
pip3 install opencv-python
```

1.2 Python libraries

```
[ ]: import tkinter as tk
import cv2 as cv # openCV
import socket # wireless communication
```

```
[ ]: # run python files
# inside terminal
python file.py
```

1.3 Common Git commands

```
[ ]: $ git pull origin
$ git commit -m "[message]"
$ git push --all

$ git branch # list branches
$ git switch [branch_name]
```

```
$ git checkout -b [new_branch_name] # create and switch to the new branch  
$ cat file.txt # Display file.txt content
```

1.4 Convert notebook(.ipynb) to PDF

Navigate to the directory where the notebook is saved. Enter the following line in the terminal (or run directly)

1.4.1 There are two packages need to be installed before conversion:

1. pandoc (<https://pandoc.org/installing.html>)
2. nbconvert (<https://nbconvert.readthedocs.io/en/latest/install.html>)

```
[ ]: import nbconvert  
jupyter nbconvert --to pdf Software-notes.ipynb  
# change [notebook] to the name of current notebook
```