National College of Ireland

Configuration Manual

MSc Internship
Cyber Security

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School of Computing
National College of Ireland

Supervisor: Vikas Sahni

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MSc Project Submission Sheet

School of Computing

Student Name: Adeola Daniel Ajiginni

Student ID: X19140002

Programme: Cybersecurity **Year:** 2019/2020

Module: Internship

Supervisor: Vikas Sahni

Submission Due Date: ……

Project Title: IDENTIFICATION AND CLASSIFICATION OF IP SPOOFING MAN IN THE MIDDLE ATTACK USING MULTILAYER PERCEPTRON

Word Count: …… **Page Count**……..

I hereby certify that the information contained in this (my submission) is information pertaining to research I conducted for this project. All information other than my own contribution will be fully referenced and listed in the relevant bibliography section at the rear of the project.
ALL internet material must be referenced in the bibliography section. Students are required to use the Referencing Standard specified in the report template. To use other author's written or electronic work is illegal (plagiarism) and may result in disciplinary action.
I agree to an electronic copy of my thesis being made publicly available on NORMA the National College of Ireland's Institutional Repository for consultation.

Daniel

Signature: ……

Date: ……

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Configuration Manual

Adeola Daniel Ajiginni
Student ID: x19140002

1 Introduction

This file contains step by step instructions to be followed to completely reproduce Identification and Classification of IP Spoofing Man int eh Middle Attack using Multilayer Perceptron

2 Environment set-up

This are the environments and libraries that were used and should be set-up if you do not have the environment.

PYTHON INSTALLATION

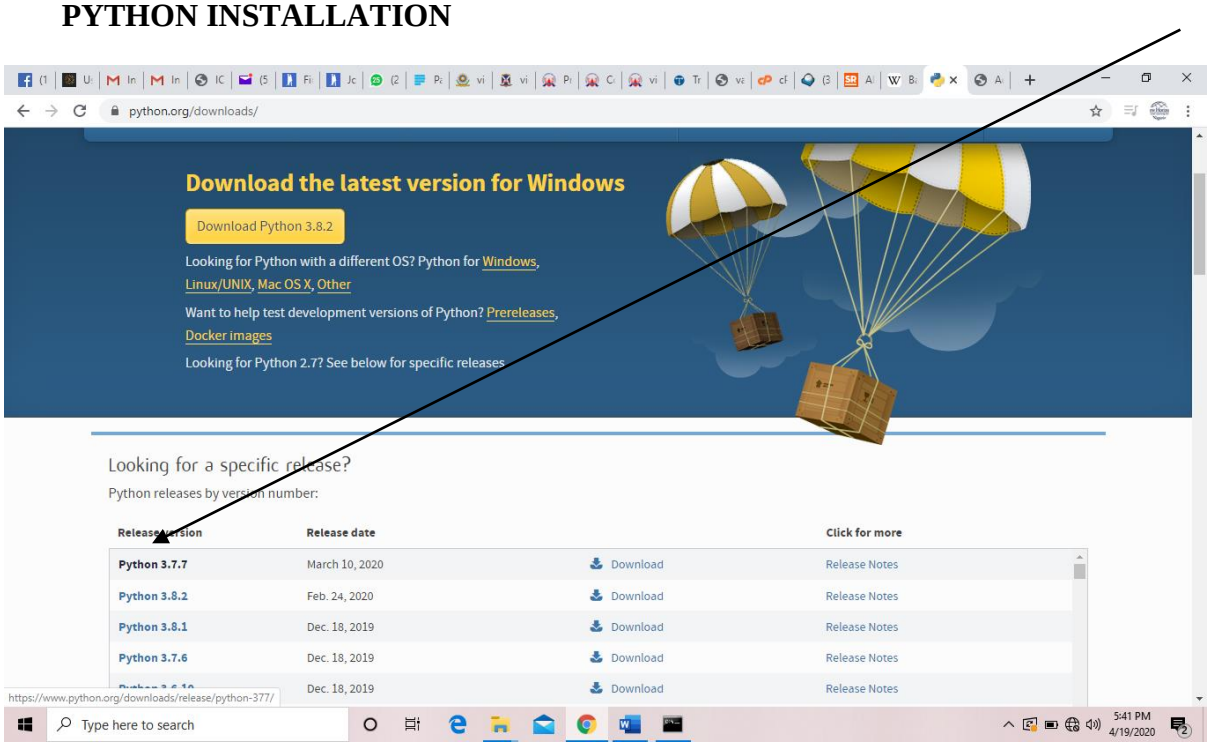


Figure 2. download of Python

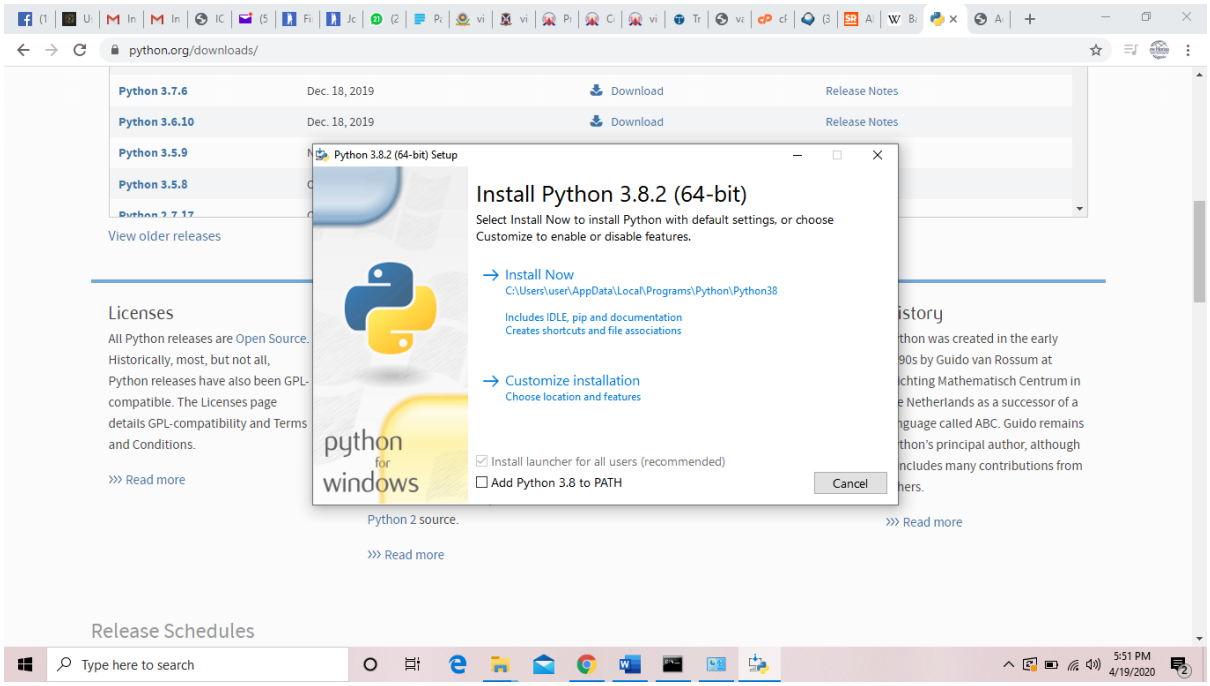


Figure 2.1 Python Installation

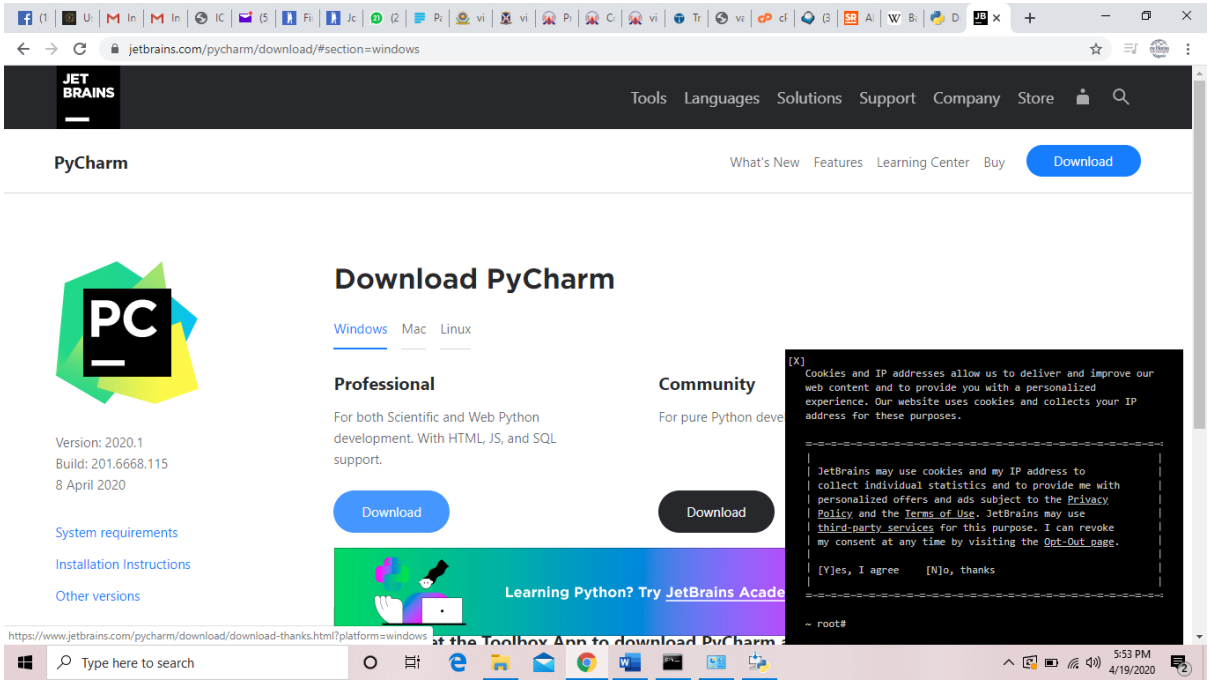


Figure 2.2 Pycharm download

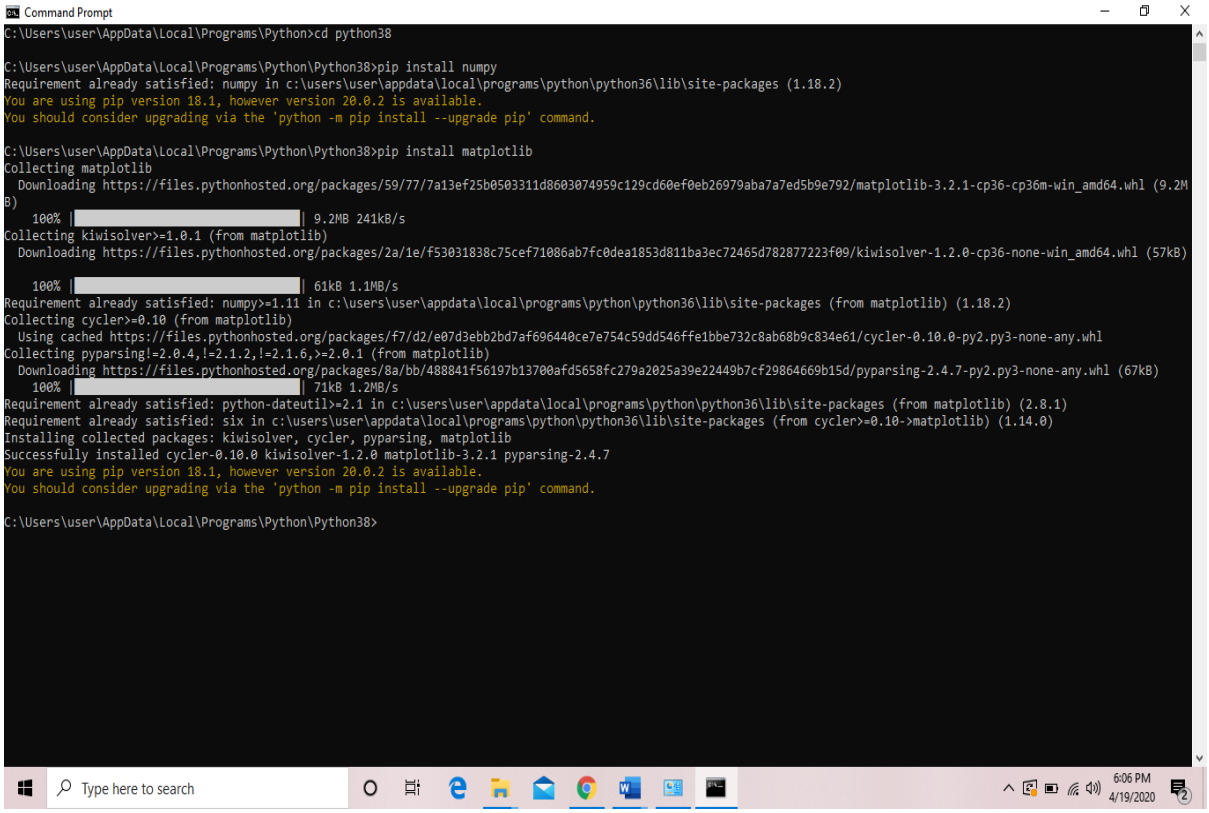


Figure 2.3 Matplotlib library has been installed.

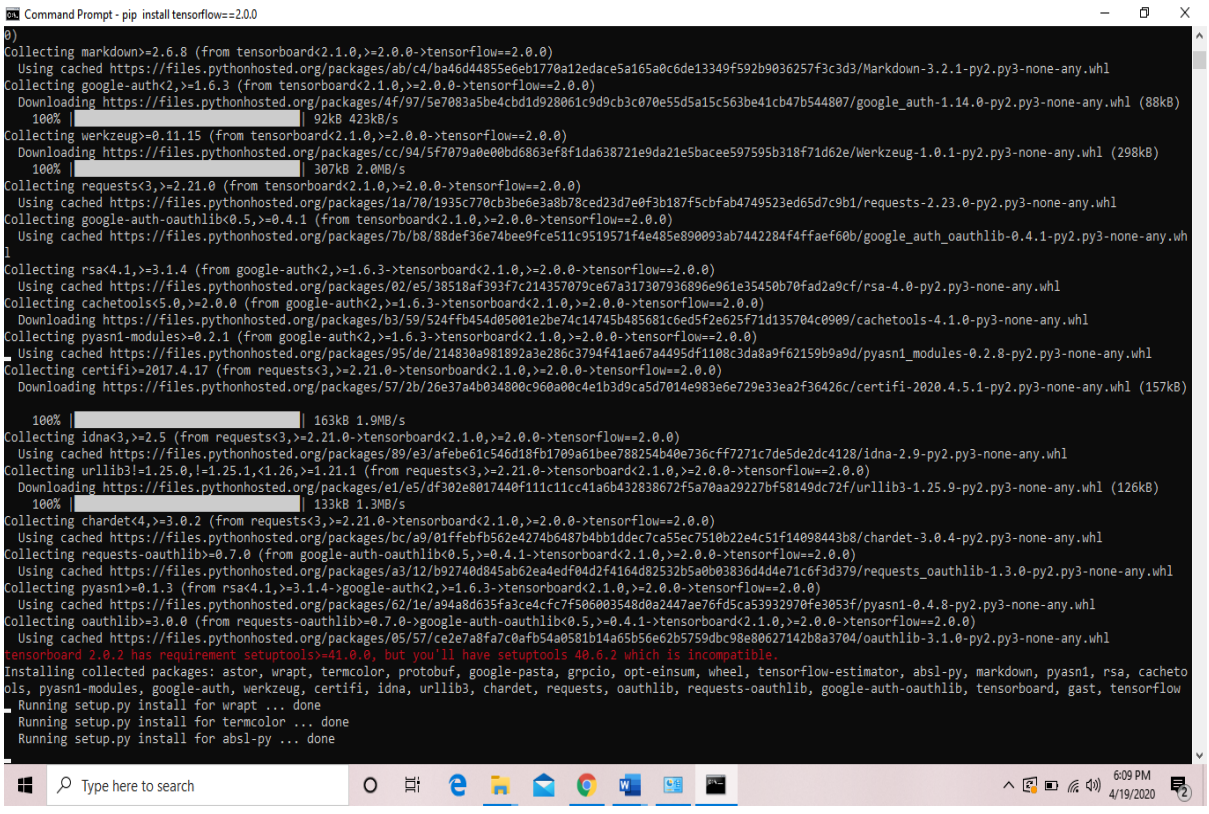
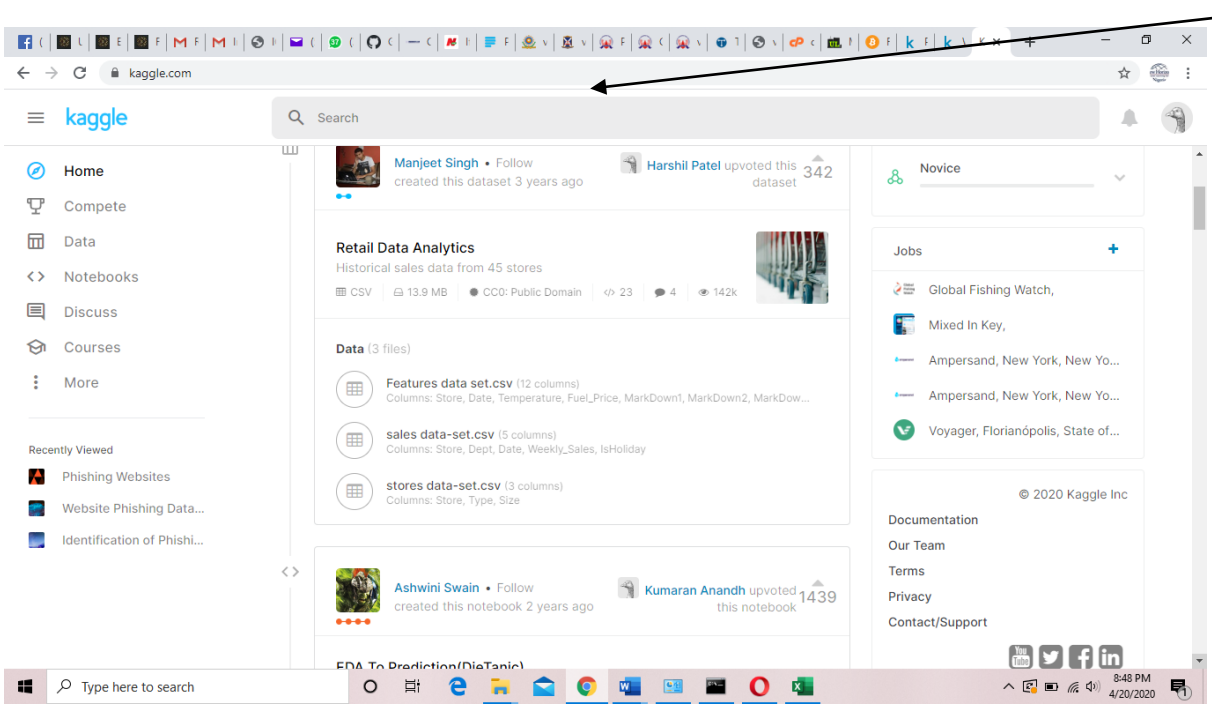


Figure 2.4 Keras and Tensorflow libraries have been installed

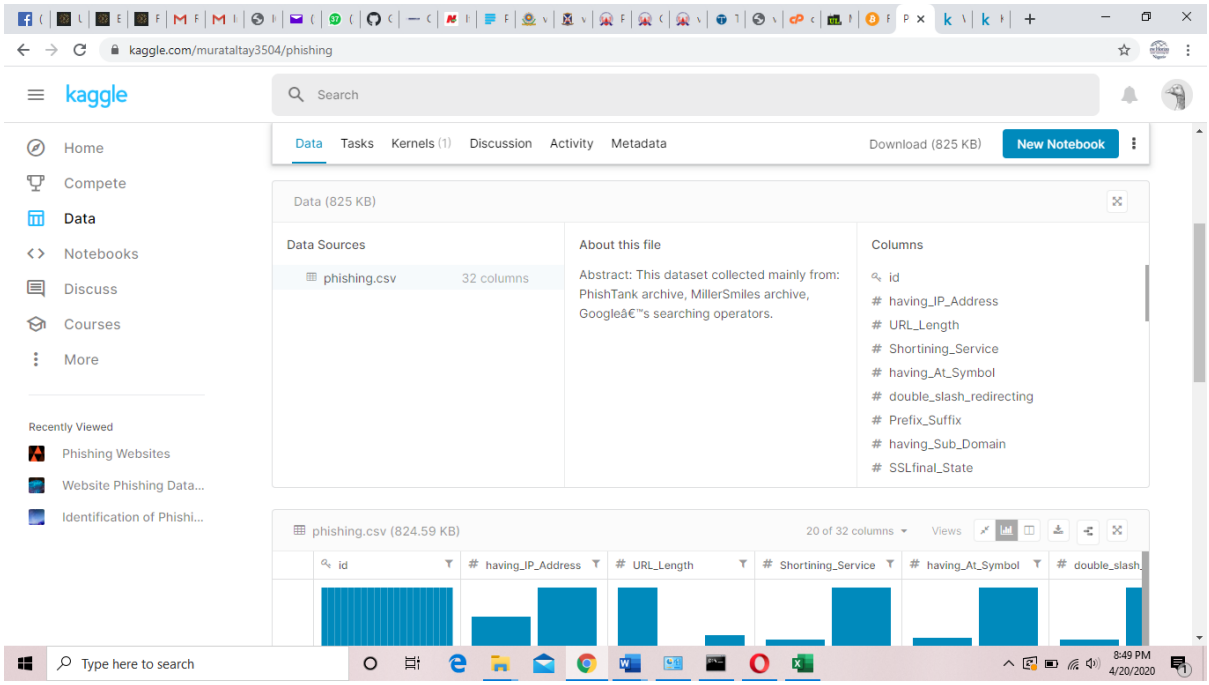
3 Implementation

3.1 Data source

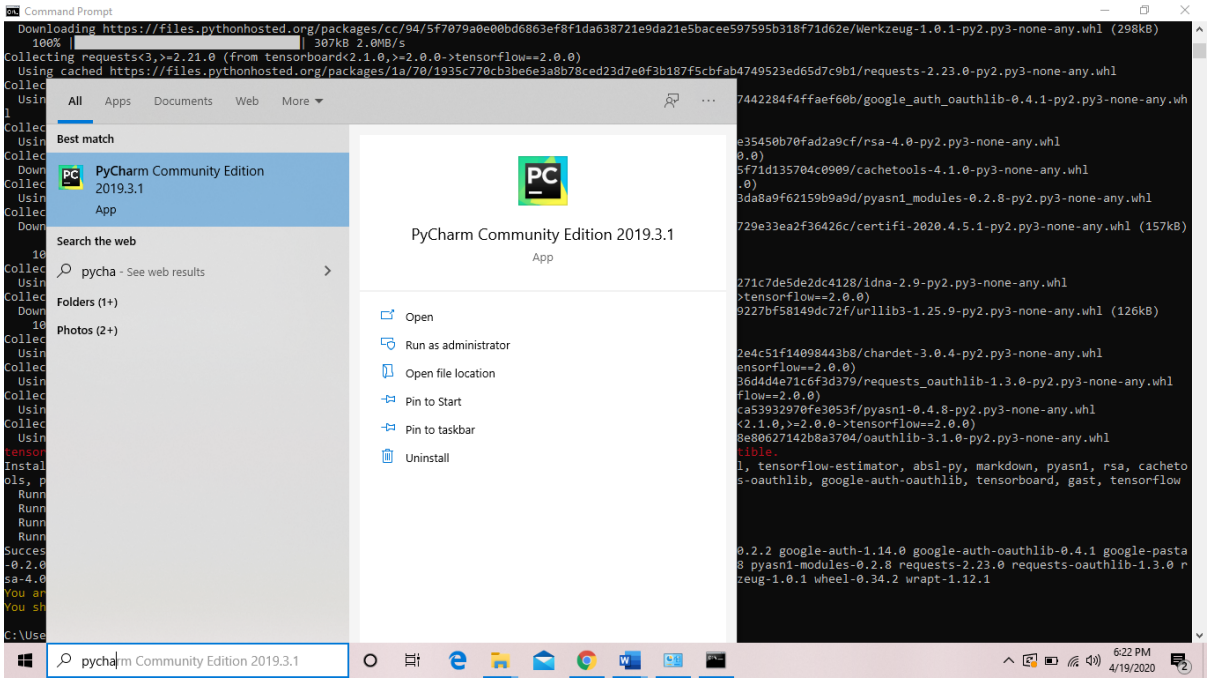
The data used in this project was gotten from kaggle.



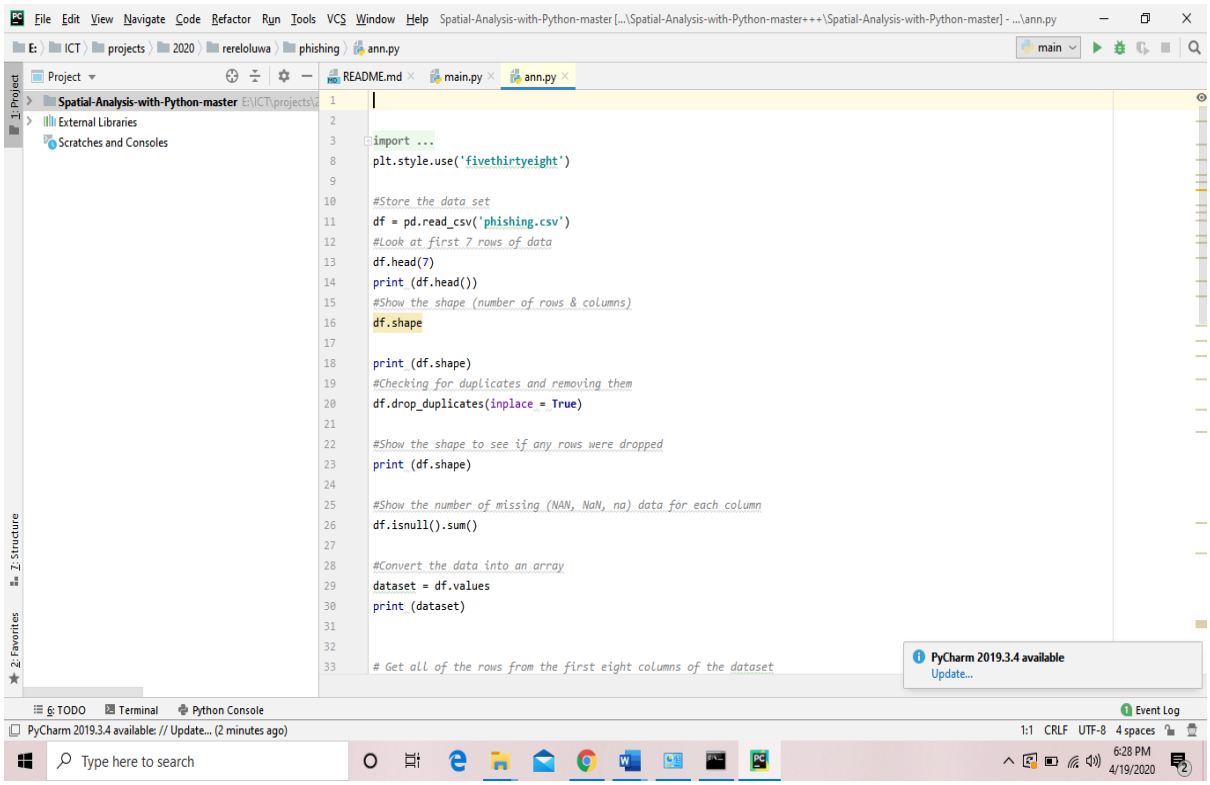
Dataset Download from Kaggle



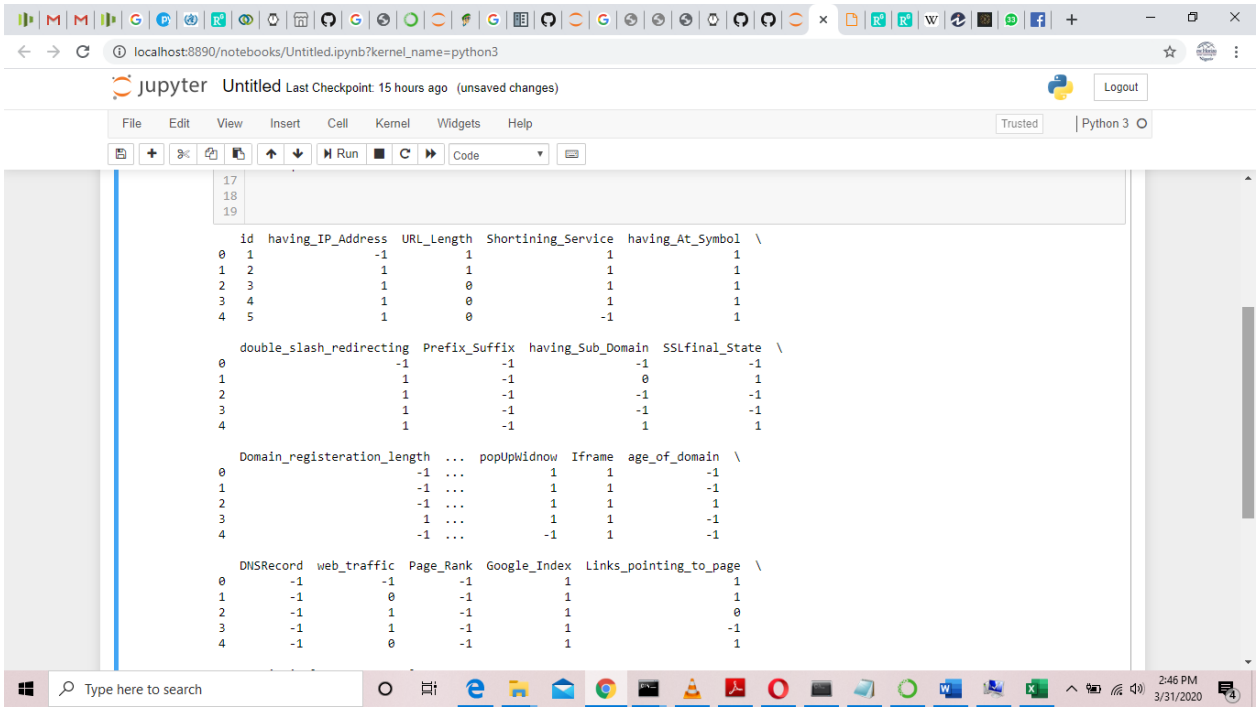
2.0 Launch Pycharm application



2.4 Code input



2.5 Output


localhost:8890/notebooks/Untitled.ipynb?kernel_name=python3
jupyter Untitled Last Checkpoint: 15 hours ago (unsaved changes)
Logout
File Edit View Insert Cell Kernel Widgets Help
Trusted Python 3
Run Code
17
18
19
id having_IP_Address URL_Length Shortining_Service having_At_Symbol \
0 1 -1 1 1 1
1 2 1 1 1 1
2 3 1 0 1 1
3 4 1 0 1 1
4 5 1 0 -1 1
double_slash_redirecting Prefix_Suffix having_Sub_Domain SSLfinal_State \
0 -1 -1 -1 -1
1 1 -1 0 1
2 1 -1 -1 -1
3 1 -1 -1 -1
4 1 -1 1 1
Domain_registeration_length ... popUpWidnow Iframe age_of_domain \
0 -1 ... 1 1 -1
1 -1 ... 1 1 -1
2 -1 ... 1 1 1
3 1 ... 1 1 -1
4 -1 ... -1 1 -1
DNSRecord web_traffic Page_Rank Google_Index Links_pointing_to_page \
0 -1 -1 -1 1 1
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3 -1 1 -1 1 -1
4 -1 0 -1 1 1
Type here to search
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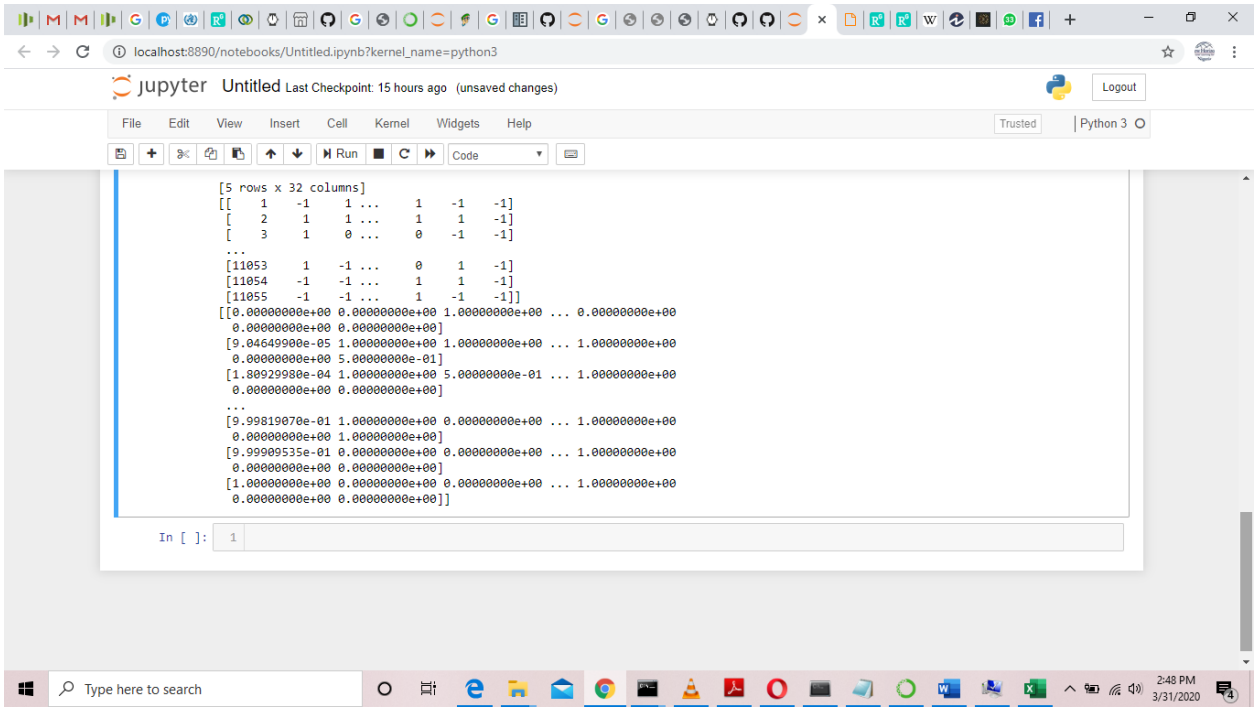
3/31/2020


localhost:8890/notebooks/Untitled.ipynb?kernel_name=python3
jupyter Untitled Last Checkpoint: 15 hours ago (unsaved changes)
Logout
File Edit View Insert Cell Kernel Widgets Help
Trusted Python 3
Run Code
[5 rows x 32 columns]
[[1 -1 1 ... 1 -1 -1]
[2 1 1 ... 1 1 -1]
[3 1 0 ... 0 -1 -1]
...
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[11055 -1 -1 ... 1 -1 -1]]
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0.00000000e+00 5.00000000e-01]
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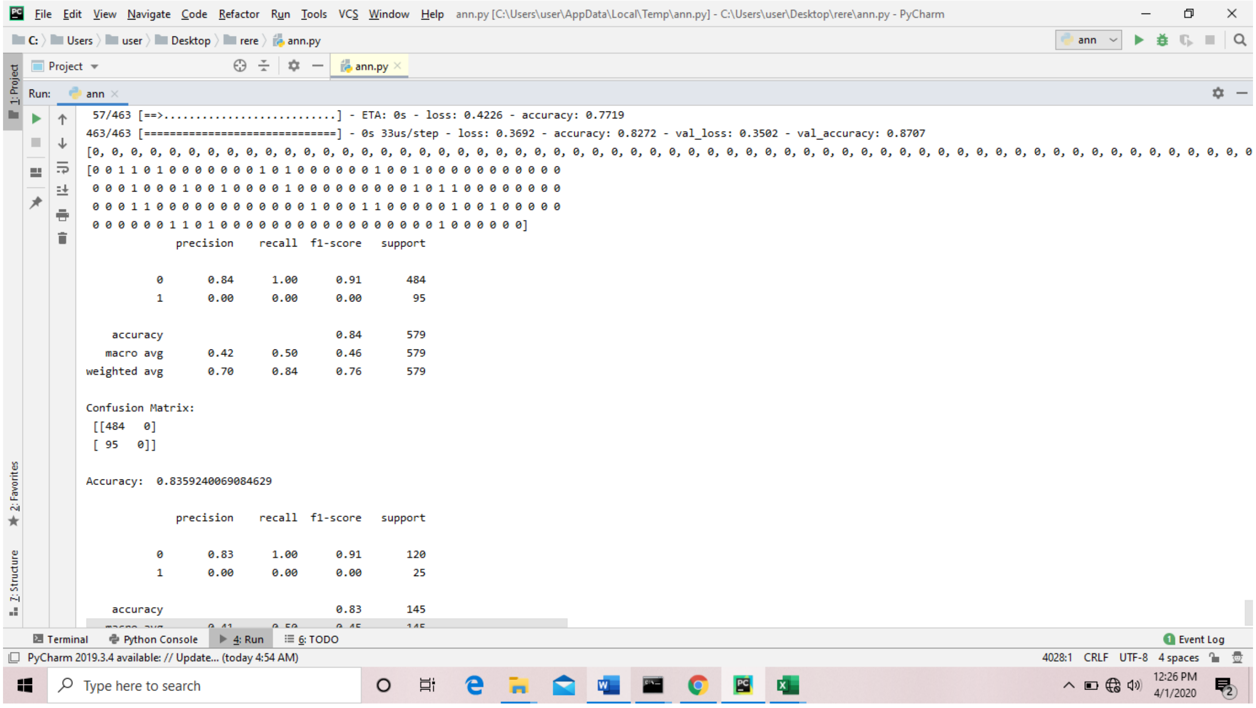
3/31/2020


File Edit View Navigate Code Refactor Run Tools VCS Window Help ann.py [C:\Users\user\AppData\Local\Temp\ann.py] - C:\Users\user\Desktop\rere\ann.py - PyCharm
57/463 [==>...........................] - ETA: 0s - loss: 0.4226 - accuracy: 0.7719
463/463 [==============================] - 0s 33us/step - loss: 0.3692 - accuracy: 0.8272 - val_loss: 0.3502 - val_accuracy: 0.8707
[0 0 1 1 0 1 0 0 0 0 0 0 0 1 0 1 0 0 0 0 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0
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0 0 0 0 0 0 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0]
precision recall f1-score support
0 0.84 1.00 0.91 484
1 0.00 0.00 0.00 95
accuracy 0.84 579
macro avg 0.42 0.50 0.46 579
weighted avg 0.70 0.84 0.76 579
Confusion Matrix:
[[484 0]
[95 0]]
Accuracy: 0.8359240069084629
precision recall f1-score support
0 0.83 1.00 0.91 120
1 0.00 0.00 0.00 25
accuracy 0.83 145
PyCharm 2019.3.4 available: // Update... (today 4:54 AM)
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4/1/2020