

Configuration Manual

MSc Research Project MSc Cyber Security

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MSc in Cyber Security

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_	MSc in Cybersecurity	_	2022
Programme:		Year:	
	MSc Research Project		
Module:			
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Supervisor:			
Submission	08-MAR-2023		
Due Date:			
Project Title:	DETECTING SECURITY BREACH USING ARTIFIC	CIAL NE	URAL NEWORK
	700 7		
Word Count:	Page Count		

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Configuration Manual

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1. Introduction:

The manual documents about all the necessary tools and the technologies required to implement the research model. The manual is further divided into various sections. Section 2 mentions about the environment setup required, Section 3 mentions about the tools and software's used, Section 4 mentions about implementing the project.

2. Environmental Setup:

Below mentioned configuration was used to implement the model.

- Processor: Intel i3 •
- Memory: 12GB RAM
- Programming language: Python3
- Python Environment: Jupyter Notebook, Anaconda Navigator

3. Tools and Software used:

Below mentioned software were used to implement the model.

- For programming Language, we have used Sublime text. Below are the steps to install it. Go to google and type "download Sublime text". Select the first link and the below page appears as shown in the below figure.

🗲 Sublime Text	Download	Buy	Support	News	Forum
Download					
Sublime Text 4 has been released, and contains significant improvements over this version.		Introdu Su	icing our Git cli blime Merge	ient	
Version: Build 3211 • OS X (10.7 or later is required) • Windows - also available as a portable version		Transformed Site Conversion Character Content Character Content Excellence Content System(Add new Content System(Add new Content	And the second s	the second	
Windows 64 bit - also available as a <u>portable version</u> Linux repos - also available as: <u>64 bit.deb</u> - <u>sig, key</u>		For notif follow @	ication about <u>sublimehq</u> on	new releases, twitter.	
 <u>64 bit.rpm</u> - signed, key <u>64 bit.pkg.tar.xz</u> - sig, key <u>64 bit.tar.bz2</u> - sig, key 		• Subl	R DOWNLO	DADS	
<u>32 bit.tar.bz2</u> - <u>sig, key</u> Sublime Text may be downloaded and evaluated for free, however a license must be nurchased for continued use. The	aere ic	• <u>Subl</u> • <u>Subl</u>	ime Text 4 De ime Text 2	ev Builds	

currently no enforced time limit for the evaluation

Fig 1. Downloading Anaconda Prompt

- For dataset processing and performing operations on it, we have used open source project application called sublime text. It uses sublime kernel for processing and performing operations on the datasets.
- Downloading Anaconda 3.0:
 - Go onto google and type "download anaconda 3.0" and download the setup file.
 - Below are the images showing the steps to be followed to install the application.



Fig 2. Downloading Anaconda 3.0

V Anaconuas 2022.10 (04-	bit) Setup				^
O ANACONDA.	Advanced Installat Customize how Anac	ion Options onda integrate	es with Windows	5	
Advanced Options					_
Add Anaconda3 t	o my PATH environment	t variable			
Not recommended. I menu and select "An Anaconda get found cause problems requ	nstead, open Anaconda aconda (64-bit)". This "a before previously instal iring you to uninstall and ta3 as my default Pytho	a3 with the Wir add to PATH" o lled software, d reinstall Anad	idows Start iption makes but may conda.		
This will allow other p PyCharm, Wing IDE, detect Anaconda as	programs, such as Pytho PyDev, and MSI binary the primary Python 3.9	on Tools for Vis packages, to on the system	ual Studio automatically		
Anaconda, Inc		< Back	Install	Can	cel

Fig 3. Select default installation.

Anaconda3 2022.10 (64-bit) Setup			_		\times
O ANACONDA.	Installing Please wait while	Anaconda3 2022	. 10 (64-bit) is b	eing instal	ed.
Extract: cffi-1.15.1-py39h	2bbff1b_0.conda				
Show details					
Anaconda, Inc. ————		< Back	Next >	Cano	el

Fig 4. Installation completion

4. Implementation of the Model

Step 1: Downloading the dataset from the trusted website in csv format.

\leftrightarrow \Rightarrow G	C unb.ca/cic/datasets/index.html			
~	About Research Members	Datasets Contact Us UNB Home Give	Apply	۹
	wembership >	industry, and independent researchers. We maintain an interactive map indicating datasets		
	Research >	downloaded by country.		
	Datasets 🖌			
	Webinars >	A		
	Global EPIC Program >	Available datasets		
	Cybersecurity Workshop >	✓ IoT Dataset		
		 Malware 		
		✓ DNS Datasets		
		✓ Dark Web		
		✓ IDS Datasets		
		 ISCX Datasets, 2009-2016 		

Fig 3. Downloading the Dataset

Step 2 :- We have used anaconda navigator, in order to use sublime text. First we need to install anaconda navigator. Anaconda Navigator [1] can be installed from the website mentioned in the reference. We launch the navigator, and we can see sublime text

After installation open anaconda and activate the environment.



Then open sublime text and go to file and open and select the code from the desired location and we can see the code.

After we see the code on sublime text we need to run the code to see the outcome for which we have to go onto anaconda and enter the location after " cd "location of the code".

And the to run the text we need to type the below code as shown

" ml_env) C:\Users\mshyd>cd C:\Users\mshyd\Downloads\code "

To run the trained code type

ml_env) C:\Users\mshyd>cd C:\Users\mshyd\Downloads\python train.py

and to open the GUI page

ml_env) C:\Users\mshyd>cd C:\Users\mshyd\Downloads\python gui.py