

Configuration Manual

MSc Internship
MSc in Cybersecurity

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MSc Project Submission Sheet
School of Computing



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Programme: MSc in Cybersecurity **Year:**2020.....

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Lecturer: Niall Heffernan

Submission Due Date:17th August 2020.....

Project Title: Configuration Manual

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Configuration Manual

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1. Introduction

This document serves as a guide to configure the environment, perform the installations and necessary setup required for this project

2. System Specification

Personal laptop was used for the development and execution of the solution.

System Information:

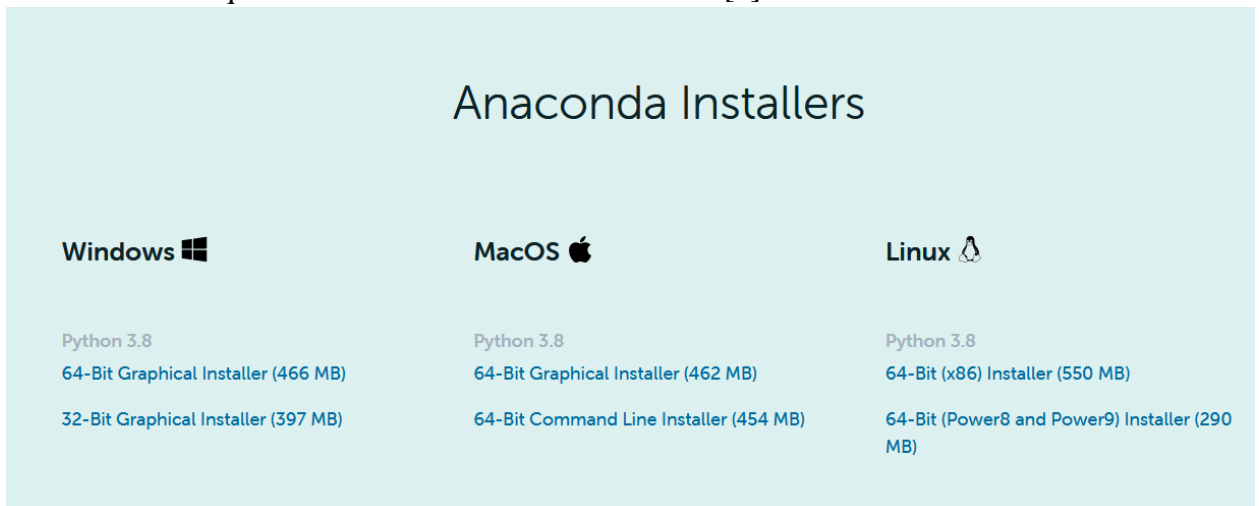
- Processor: Intel(R) Core (TM) i7-8750H,
- CPU: 2.20 GHz, 2.21GHz,
- GPU: NVIDIA GeForce GTX 1060,
- RAM: 16GB,
- Storage: 1 TB HDD and
- Operating system: Windows 10 Home, 64-bit, x64-based processor.

3. Software and Tools

The solution was developed and run in Python 3.7 run via Jupyter Notebook. I have used Anaconda since it has all the required Python libraries used for data analytics. Jupyter notebook provides a good web-based platform for writing and executing the code.

- Anaconda Navigator3 version 5.3.1 9 64 bit
- Python 3.7
- Jupyter Notebook

Download the required Anaconda version from this link[1].



4. Dataset

For this research NSL-KDD [2] dataset has been used which is a publicly available data set. This dataset is more widely in use nowadays by researchers to study intrusion detection systems.

5. Execution of code

Below are the steps to run the code

- Download the ICT zip and unzip into a folder
- Open Jupyter notebook via Anaconda Navigator
- Open NSL-KDD_Implementation.ipynb files in Spyder and .ipynb file in Jupyter
- change the path of dataset to your local folder that contains the dataset
- Run the code, either step by step or whole code at the same time.

References:

[1] 'Anaconda | Individual Edition', *Anaconda*.

<https://www.anaconda.com/products/individual> (accessed Aug. 17, 2020).

[2] 'NSL-KDD | Datasets | Research | Canadian Institute for Cybersecurity | UNB'.

<https://www.unb.ca/cic/datasets/nsl.html> (accessed Aug. 17, 2020).