README

The python code extracts data from network communications and identifies edges that have 'bot-like' behavior due to repeated communication at equal time intervals.

The code is : <u>bot_detection.py</u>

Read the document "<u>Botnet Detection Algorithm.docx.pdf</u>" in the folder for insights on how the algorithm works.

Change the paths of input data in the following functions: @ get_Data(day)

- The day input can take ['a','b','c']
- Change this path to point to your input data -

'/Users/emugambi/botnet_traffic/Data/lanl_nflow_a%s'

• See this folder for all input data files with daily connections between source and destination computers in the LANL network - '/Users/emugambi/botnet_traffic/Data/'

To run the code:

Call this function:

@run_detection_methods(which_day)

- Which_day: select from this list ['a','b','c']
- Change the path to where you want the results saved
- Results are the edges that show high repetivity and have bot-like behavior
- @ edge_traffic_dist(which_day,src,dst)
 - Inputs are : [day,source_computer,destination_computer]
 - Output is a plot of distribution of time intervals between connections.