Assignment 4

Due Date: November 17th, 2024

Building a Security Dashboard

Exploratory Data Analysis (EDA) is a fundamental step in data analysis, where the data is first examined, summarized, and visualized before conducting more advanced analytics. The first step to exploratory data analysis is to build a platform for visualizing data. In the world of cyber security, the task of exploratory data analysis is made simple through design of effective dashboards.

Security dashboards are built on the principles of data visualization. They take complex security data and present it in a visually accessible format. EDA also involves data visualization, allowing security professionals to explore patterns, trends, and anomalies in the data. Dashboards use visualization techniques derived from EDA to convey security insights effectively. Among many benefits, the key purpose of a security dashboard is to aid in Feature Selection, Security Alerting and Prioritization and Security Alerting and Prioritization.

In this assignment you will build an interactive security dashboard using ***PowerBI*** tool. An interactive dashboard is one that allows the user to click on the visuals to inspect the data in more depth.

You can work on one the following datasets to build your dashboard:

- Network related data sets: Datasets | Research | Canadian Institute for Cybersecurity | UNB
- IoT and IIoT dataset: Edge-IIoTset Cyber Security Dataset of IoT & IIoT (kaggle.com)

NOTE: The assignment will be graded based on creativity and liveliness of the dashboard. You may get a chance to convert your work into a research paper if you can discover any interesting patterns in the above datasets.