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## PREDICTION OF CYBER ATTACKS USING MACHINE LEARNING TECHNIQUE

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### SOBRE A INTELIGENCIA ARTIFICIAL (IA)

“Machine learning is to predict the future from past data. Machine learning (ML) is a type of artificial intelligence (AI) that provides computers with the ability to learn without being explicitly programmed. Machine learning focuses on the development of Computer Programs that can change when exposed to new data and the basics of Machine Learning, implementation of a simple machine learning algorithm using python. Process of training and prediction involves use of specialized algorithms.” PAG 2

### Sobre analise de DoS

“[...] Detection based on abnormality is effective to detect DoS attacks. A various studies focused on DoS attacks from different respects. However, these methods required a priori knowledge being a necessity and were difficult to discriminate between normal burst traffics and flux of DoS attacks. Moreover, they also required a large number of history records and cannot make the prediction for such attacks efficiently. [...]” PAG 3

### Sobre a identificação do ataque

“[...] Possible multi-step attack against a network start with information gathering about network and the information gathering is done through network Reconnaissance and fingerprinting process. Through reconnaissance network configuration and running services are identified. Through fingerprint process Operating system type and version are identified. [...]” PAG 4

### Sobre os dados

“[...] Importing the library packages with loading given dataset. To analyzing the variable identification by data shape, data type and evaluating the missing values, duplicate values. [...]” PAG 7

“Pre-processing refers to the transformations applied to our data before feeding it to the algorithm. Data Preprocessing is a technique that is used to convert the raw data into a clean data set.” PAG 9

### Sobre a machine learning

“It can be inferred from this model that, area analysis and use of machine learning technique is useful in developing prediction models that can helps to network sectors reduce the long process of diagnosis and eradicate any human error.” PAG 12