

A Digital DNA Sequencing Engine for Ransomware Detection Using Machine Learning

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Abstract— The emerging development of machine learning models and artificial intelligence frameworks in recent days enrich the optimization of computing process involved in system developments. The DNA computing is the process of effective computing of relativity components, dynamic responses extracted from various existing computing systems. It acts as a metaphor for exploring solutions through genetic behavior of data involved in the computing process. Conventional method of steganography is limited to versatile operation. In the proposed approach smith waterman algorithm is utilized to formulate the secure storage and processing of cloud data. Due to various external software involved in computing operations, the malicious activity in the cloud is increased. The proposed approach considers the hierarchal based attribute model for encryption. The proposed model considers smith waterman algorithm (SWA) for efficient optimization of DNA data. Apart from various challenges, the proposed system is developed with effective user accessible cloud platform for lightweight health care systems.

Keywords— DNA sequencing, DNA analysis, steganography, Cryptography, Machine learning.

I. INTRODUCTION

In Computer Architecture design DNA computing is implemented to optimize the process of search of data finding similar data sequences finding unique data sequences etc. Data sequence generation can be implemented using various process. Some of the commonly used practice are Generic design through algorithm design and parametric design. In genetic method algorithm considered the hierarchical data collector from various computations done so far and gather those pattern of data to make the classification and prediction process. In parametric design the unique data collected from previous operations Design parameters which are manipulative to make a decision based on relevant data set[1]. In terms of design evaluation there are two kinds of design evaluations are adopted adaptive design process Iterative design process. In spite of dynamically wearing environment, the adaptive process flow adjust according to the changes occurring in the environment tell parameters and formula the results accordingly. iterative design flow various historical data are considered for making the decision in which you

process flows for a certain frame of time. Since most of the DNA Sequencing process are developed based on the optimization algorithm the evolution of design constrained considered the biologically inspired algorithms that considered as various behaviour of biological examples.

Data and coding is one of the process of DNA sequencer in which the data which is required to be opted for analysis process is encoded before it is switching Intruder prediction algorithm. The system is utilized to make collaboration system control Systematic modification of designs [2].

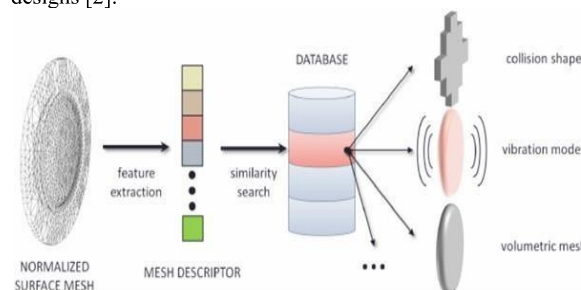


Fig 1. DNA similarity search model [3]

Fig 1. Shows sample process of DNA similarity search model. To implement the design, the response to dynamic changes occurring in the system is developed in the presented approach. DNA sequences are a powerful mechanism are the metaphor for the optimization process required in computing systems.

DNA sequence for effective computing process is helpful in creating potential operations for solving complex problems such as fault detector performance analyser objective optimization problem etc. DNA sequence coding can be helpful to make multi objective Optimization problems implemented in computing systems. In various existing systems according design implemented through DNA sequences for multi-constraint Optimization problem etc[3].

Various existing implementations relevant to the DNA Sequencing systems provide contributions on Active mechanism and generative techniques to make relativity between the data[4]. a novel constraint is explore in the existing platform that find the hamming distance as a key for