**Title of the Project: Secure the drug components using Naïve Bayes and SVM**

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**ABSTRACT**

In this paper, we propose a framework to secure drug components in the cloud. Specifically, we design for multiple drug formula providers’ to use the cloud securely. In our approach, the analyzer trains the drug formulas using Support Vector Machine (SVM) and naïve Bayes. To perform integer and fraction computations in the cloud server, we designed secure computation protocols. We securely train the SVM to privately refresh the selected SVM parameters using the two protocols which are SVM parameter selection protocol and sequential minimal optimization protocol. We train NB based on bayes theorem with an assumption of independence among predictors. To determine whether a drug compound is active or inactive in a cloud, the trained SVM and NB  classifier is used.Lastly, we prove that the proposed framework achieves the goal that facilitate drug manufacturers to securely outsource their formulas without privacy leakage to unauthorized parties in the cloud for storage and  for SVM and NB training.