Good morning. I’ve really been looking forward to meeting you.

I´m Ronak Agrawal. I have completed my Engineering in Computer science, while my graduation I have worked on the project “Distributed Intrusion detection system using Bayesian learning and Apache Mahout.” And apart from these I also have worked on Apache Hadoop, Linux OS and shell script.

Well briefing about my project “Distributed Intrusion detection system using Bayesian learning and Apache Mahout.” The Problem was to detect the intrusions in the distributed network. The objective behind making this application was to make the systems more secure on the basis of the intrusion detected by any system can be shared as an experience with other systems and this can be used to be aware of it next time.

With the growing era of internet, the network security has become the key foundation for lot of financial and business web applications. Imperfectness of intrusion detection systems (IDS) has given an opportunity for data mining to make several important contributions to the field of intrusion detection. Here, we propose a new approach by utilizing data mining techniques such as neuro-fuzzy and Bayesian learning algorithm for helping IDS to attain higher detection rate. The proposed technique has four major steps: primarily, k-means clustering is used to generate different training subsets. Then, based on the obtained training subsets, different neuro-fuzzy models are trained. Subsequently, the probability computation of the intrusions based on the fuzzy rules is performed using Bayesian algorithm to detect intrusion has happened or not. And then these probabilities are passed to Apache Mahout for the collaborative filtering and recommendations for the next time depending on this experience.

The technologies and algorithms used in developing this application are k-means clustering algorithm, Neuro-fuzzy logic, Bayesian Probability Algorithm, Apache Mahout. This project was developed in Java using NetBeans IDE and the database used was MySQL.

Now let me explain you the architecture and the working of the system in detail.

It was very nice to meet you; I hope we meet again soon.