



CSE 543: Information Assurance and Security

Using Machine Learning to improve IAS in IoT

Group 14 Weekly Report - 1

Person prepared this report: All members of the group

Person approved this report: Amogh Manoj Joshi

Person submitted this report: Amogh Manoj Joshi

List of members

1. Amogh Manoj Joshi (Group Leader)
2. Priyadarshini Venkatesan (Deputy Leader)
3. Vignan Varma Chekuri
4. Venkata Karthik Reddy Peddireddy
5. Siva Priya Bollineni
6. Anusha Akuthota
7. Sarika Naidu Chirki
8. Ramya Thota

Meeting Notes

01/17/2023: [3:30 pm - 4:30 pm] [Mode: Virtual]

- The group members connected via a google meet. This was an introductory meeting where each member introduced themselves followed by his/her preferred area of interest
- As a result of the majority of people having a background in Machine Learning, it was chosen as the area in which the group would pursue the course project in
- **Attendance:** Amogh, Priyadarshini, Karthik, Vignan, Siva Priya
- **Absence:** Ramya, Anusha, Sarika (All of them were travelling)

01/18/2023: [6:30 pm - 7:30 pm] [Mode: Virtual]

- The group members went through the suggested project topics in the canvas and discussed the topics which each member found interesting
- Two topics turned out to be of common interest:
 - Using Machine Learning to improve IAS in IoT
 - Using Machine Learning to improve IAS in Cloud Computing
- The group members decided to do a comprehensive research on the accessibility of published research and the scope of potential sub-topics in both the project topics and then decide which topic to pursue
- **Attendance:** Amogh, Priyadarshini, Karthik, Vignan, Siva Priya
- **Absence:** Ramya, Anusha, Sarika (All of them were travelling)

01/21/2023: [6:30 pm - 7:30 pm] [Mode: Virtual]

- After doing their research on both the topics of interest, Machine Learning for IoT was decided to be the course project topic since it had a rich research database available on the internet and covered a wide range of sub-topics
- The members decided to start a thorough literature survey about the selected topic and its scope, which would pave the way for the direction along which the group would pursue the course project
- **Attendance:** Amogh, Priyadarshini, Karthik, Vignan, Siva Priya
- **Absence:** Ramya, Anusha, Sarika (All of them were travelling)

Tasks Summary

Task Number	Task Name	Description of Task	Member	Task Status
1	Create a forum for discussion	WhatsApp group has been created as our mode for discussion	Amogh Joshi	Completed
2	Finalizing the Domain	Decided to work in the field of Machine learning for the group project	All the members of the group	Completed
3	Initial Literature survey	Intensive research conducted, discussed various sub-topics by all the members	All the members of the group	Completed
4	Deciding the topic to pursue the project	Post literature survey we narrowed our areas to either working on to improve Cloud Computing or on IoT using ML.	All the members of the group	Completed
5	Determining the project scope	Finally decided that we would work on "Using Machine Learning to improve IAS in IoT"	All the members of the group	Ongoing
6	Literature survey	Going through and analyzing previous research on the topic	All the members of the group	Ongoing

Task Progress

Task Name	Member	Date and time of Review	Reviewer(s)	Mode of Review	Review Conclusion	Recommended Action
1) Forum for discussion	Amogh Joshi	01/16/2023	Amogh Joshi	Individual	Satisfactory	Completed
2) Finalizing the domain of the project	All the members of the group	01/17/2023	All the members of the group	Group Meeting	Satisfactory	Completed
3) Initial reading of related research papers	All the members of the group	01/18/2023	All the members of the group	Group Meeting	Satisfactory	Completed
4) Deciding the topic to pursue the project	All the members of the group	01/21/2023	All the members of the group	Group Meeting	Satisfactory	Completed
5) Determining the project scope	All the members of the group	01/22/2023	-	-	Needs work	Ongoing
6) Literature survey	All the members of the group	01/22/2023	-	-	Needs work	Ongoing

Problems

1. The team was skeptical to select an initial proposed topic from the exhaustive concepts of using machine learning with IOT or machine learning with cloud. As a team, we resolved this problem by sitting together and discussing the literature reviews from numerous journals with a consensus review.