EXPERIENCE WORKING ON THE PROJECT:

"Alone we can do so little; together we can do so much." This is the phrase which makes me boost my enthusiasm to work with a team. Right from the day the groups are assigned all our group mates are very excited and are desperately searching for the best project to come out with. Everyone had kept their equal efforts in figuring out the best project which covers all the syllabus which has been taught in the semester. Then comes the opt project “AIRBNB new user prediction” which met our desired requirements.

When I first started off, I taught that project would be simple but, once when i start digging deep in the data i found that it is not a cakewalk. But our group is unique in a sense that each group member has his own unique talent and which actually helped each other and make us learn new things .It’s just like how important for the composition of a team is. You need to recruit the right members to form a high-performance team. Perhaps, we were quite lucky to be put in the same team. Thanks to the professor for assigning me to the best people in the class to work with.

What makes our team eventually develops into a high-task team is actually the good relationship we establish along the way. As we grow closer together, we actually developed a sense of belonging to the team. It’s a “we’re all in this together” kind of feeling. We want everyone to do well because we are a team. I really enjoyed working with Pavan, Maruthi, Sambit and Akshay as everyone had put their soul in the project and motivated each other throughout the project completion and made sure that we all were on the same page.

THE GROUP DYNAMICS, SUCCESSES AND CHALLENGES

**SAMBIT SOURAV**

The group dynamics was really great, it included people with all the different skill sets which was required for this project. After working with this team I am pretty much sure that I can accomplish many such projects with my team members as everyone brought something different on the table.

Each of our teammates had some relevant work work experience which helped each other learn a lot. Where pavan and Maruthi had experience in the field of data pre-processing. Sambit worked as a network analyst and is good at understanding data. I had my work experience as a data analyst where my role is to analyse and interpret trends in the unstructured data provided. With all these expertise in everyone’s skills it made us easy to split the work and make progress.

The actual hurdles started with the cleaning the data I helped in analyzing the raw data and giving my best for rest of the members to under the stratagies which I had given. Luckily they loved approach of mine and proceded with it. Sambit and Maruthi beautifully represented the plots which made us easily understand which features are really important for the model. Me and Akshay were planning strategies and deciding the possibility of algorithms that can be applied to our dataset that were beyond the class but still well suited for the problem statement.

As pre-processing stage was going on Maruthi and Pavan started coding for the project a cleaned data frame and started implementing the algorithms which we are discussed by us. These guys are amazing coders whatever the plot or information we ask for analyzing the data they used to write and gave us the perfect visualizations to make us understand and give the required strategies for going forward. Initially it was difficult to make things work in coherent manner but my team members made sure the show is going on. We tweaked our schedule to not so common manner and held meetings as late as 2 in the mornings in the library or at our team members house just to make sure everything was on track and that everyone is involved.

CONTRIBUTION OF EACH MEMBERS

As I have worked as Data analyst I had some knowledge on data wrangling techniques and building models on data to get the best accuracy. While on the other hand Pavan and Maruthi worked hardly on the coding part and who made sure there were no errors in the program. Akshay came up with alrogithms like K-NN and Decision trees. Maruthi and pavan ran all those algorithms and we got an accuracy of around 70% where we all are still not satisfied with our model. Then I came up with the XG-Boost algorithm which did exceptionally well and got an accuracy of around 84%. I helped Maruthi and sambit while they were plotting the graphs using tableau. I learnt how to use tableau by working closely with them.

As far as individual efforts of others considered I should give all the credits to my teammates once again who had contributed to their parts. Pavan and Maruthi spent a lot of time on coding part of the project by reading some research papers, analyzing the input data requirements for the models. As we have split the task of working on algorithms among ourselves. Akshay and sambit has worked on the K-nn algorithm and explored other algorithms like decision trees and regression trees. As I said above that I came up with the idea of using XGBoost to increase the accuracy and make the algorithm run faster, which it did and significantly improved the accuracy. Maruthi and Sambit  made interesting plots using Tableau and these even played a major part in the data cleaning process. Akshay has made a significant contribution to the group report with maintaining proper structure, grammar, and aesthetics. Pavan took the lead in our project and who helped with us with coding part.

I really feel that if the members were someone else, I am not sure whether this project would have turnout the same. Finally, I would say this is the best academic project that I have worked on from the academic learning perspective and teamwork perspective.