Final Reflection

At the poster fair, the first group that I visited did their capstone on stars. I wanted to see what the approach was for another group. What caught my eye with this project would be the methods and visualizations they were using. Not only did they use scatterplots and histograms, in their third question, where they questioned whether the SNR had an impact on the gravity of the stars, they used a T-test from the linear regression model to find their conclusions. It was also intriguing to see what questions the other group came up with compared to us.

The second group I looked at did their capstone on galaxies. Not only were their poster colourful, they were able to incorporate a method into each one of their questions. The first question, they mainly focused using two-sided permutation test. The second question, they used bootstrapping and confidence level. The third question, they used a linear regression model. I found this interesting as this means that they had an idea of how they were going to research their data from the beginning as they created their questions.

Working on this Capstone project taught me many things. However, one thing that stood out and I learned would be applying methods using R to research data rather than problem sets. By working with research data and creating our own answers to question, it has allowed me to develop a better sense of the what we can do with the data and which ones will actually give us a better result. Some challenges that I faced would include figuring out what data to use and understanding how the results of certain linear regression models represent the parts of the data. I would constantly check back in the lecture notes to refresh my understanding of how we can find a relationship between the output in R and what the data represented.

Working with a group has also given me the experience of working with others in a research-based task. As the capstone project is my first big final project in UofT, I had only worked with a partner on several assignments in other courses rather than multiple people. Teamwork experience is what I developed working with my group as this project would have been extremely difficult working by ourselves. Each one of us have our own responsibilities and we put all of our findings and conclusions together in the end to create one final masterpiece. Groupwork also allowed us to bounce ideas off each other and allowed others to help each other with their flaws. Although I usually preferred working alone, this group assignment not only allowed me to learn new things but make new friends and connections as well.