Sneaker industry is a major industry of investment. According to Cowen, an investment firm, the sneaker resell market is projected to grow up to be an $30 Billion industry by 2030. Sneakers are growing more popularity as they become an important part of the pop culture worldwide. The rising need or the demand for these limited supply sneakers pushes consumers to the resell market, increasing the need for a resell market. Over the years, we have been seeing a huge rise in the resell market. Now there are companies like StockX and Goat, that specifically deals with sneaker and clothing resell. StockX generated up to $400 Million in revenue in 2020, despite the COVID-19 Pandemic. Also, recent reports have stated that investing in popular sneakers can be more profitable than investing in gold.

As a “sneakerhead” myself, I have, too, bought sneakers from resellers. Through my experience, I wondered what impacted the resell prices of sneakers. There haven’t been any formal studies on the sneaker resell prices. However, in this project, I am going to analyze the impact of variables such as brands, shoe size, and dates passed since the release date to predict the values of the resell prices with target intervals $0 to $500 and $500 to $1000. Then I will be comparing the resell prices with predicted prices to create the ROC curve. The data is from Kaggle.com, but the original data set is from 2019 StockX Data Contest. The data set holds information of about 100,000 random samples of OFF-White X Nike and Yeezy 350 sales between September 2017 to February 2019.

With the help from Professor Frazier, I was able to create the model and the Results were fascinating. The model provided by Professor Frazier only holds two variables, shoe size as a categorical variable and retail price as a numerical variable. The model showed that shoe sizes are a great feature that determines the resell prices. However, I tried to improve the model by adding more variables, dates passed since the release date and the brands. The results came out to be more improved compared to the model with just two variables. Nevertheless, shoe sizes are seemed to be the most contributing factor to the resell values of OFF-White X Nike and Yeezy 350 shoes.