I came with around 15+ yrs experience in Telecom, Databases, Filesystems, Compilers and lot of experience in python and perl. The industry redefining the move to Cloud, DataScience and BigData, my work also involved moving from RDBMS to handling NoSQL data. I was also interested in not just Data Procesing but Data Consumption and wanted to have a structured learning on this from solutioning perspective. Hence started with learning Management, Access and Use of Big and Complex data (I535, I524) using open source technologies. I had worked on a project work of integrating with Social Media hence wanted to understand on mining, data analytics and visualizing the Social Media data. For the same explored the GeoSearch APIs(Tweepy), Google APIs, scikit library, dataframes, using Jupyter notebook, doing Named Entity Recognition and Sentiment Analysis. What this experience gave me was an introduction to machine learning and classification problems.

Since Statistics are the basics for Machine Learning and Data Science in general, it was very important to strengthen these basics. The structure of these modules are really inclined towards multifaceted learning, additional advantage was learning R. We did exercises for understanding the social problem in type of Distribution and applying the sets, functions, probability, transformation and regressions accordingly. This helped in the subsequent Advanced Machine Learning module where we implemented various Classification and Regression algorithms. Worked on an interesting Kaggle dataset. Implementing same algorithms on different languages gives excellent exposure.

The next level in Data Science is to understand various domains and create business analytical models to analyze the problems in the specific domains. This was the first time i had worked on @RISK tool for Excel. Created simulation for the various business problems which helped in deciding which model is optimal and apt. I got chance to apply this problem on one cost analysis for a proposal.
Simultaneously i was working on learning the Gephi Tool for Visualization and understanding the different types of graphs, how to represent the data for the correct interpretation.
Wanted to brush up on Database hence took the Applied Algorithms module which gave a lot of insights into Optimizations and application of Relation Algebra for the same.