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| Name Of The Student | Himanshu |
| Internship Project Topic | TCS iON RIO-210: Build a Classification Model for Drug Trials Dataset |
| Name of the Organization | TCS iON |
| Name of the Industry Mentor | Himdweep Walia |
| Name of the Institute | Amity University |

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| Date | Day # | Hours Spent |
| 26-05-2024 | Day-33 | 3.5 Hours |
| Activities done during the day:  Learn about the data modelling and model fitting.  **Fitting the data to model.**  **What is Model Fitting?**   * Model fitting is a measure of how well a machine learning model generalizes to similar data to that on which it was trained. * The generalization of a model to new data is ultimately what allows us to use machine learning algorithms every day to make predictions and classify data. * The definition of a good model fit is one that accurately approximates the output of an unknown input when it is provided with unknowable inputs. * A model’s fitting is the process of adjusting its parameters in order to improve its accuracy. * In order to generate a machine learning model, a machine learning algorithm is run on data for which the target variable (“labeled” data) is known.   IMG_256   * the model’s results are compared with the real, observed values of the target variable. * The next step is to adjust the algorithm’s standard parameters in order to reduce the error level and make the model more accurate. * In order to make accurate predictions, the model must repeat this process several times. * The cause of poor performance in machine learning models is either overfitting or underfitting the data. * A well-balanced model produces more accurate outcomes. * A model that is overfitted matches the data too closely. A model that is under fitted doesn’t match closely enough.   **Why is Model Fitting important?**   * Understanding model fit is important for understanding the root cause of poor model accuracy. * In fact, overfitting and underfitting are the two biggest causes of the poor performance of machine learning algorithms. * Hence, model fitting is the essence of machine learning. * If our model doesn’t fit our data correctly, the outcomes it produces will not be accurate enough to be useful for practical decision-making. * Model fitting is an automatic process that makes sure that our machine learning models have the individual parameters best suited to solve our specific real-world business problems accurately.   Reference:  <https://www.datarobot.com/wiki/fitting/#:~:text=What%20is%20Model%20Fitting%3F,matches%20the%20data%20too%20closely./> | | |
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