INTERNSHIP: STUDENT DAILY REPORT

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| Name of the Student | Vivek kumar Shriwas |
| Internship Project Topic | TCS iON RIO-125: Forecasting System - Project Demand of Products at a Retail Outlet Based on Historical Data |
| Name of the Organization | TCS iON |
| Name of the Industry Mentor | Sreekathiayini Ruthraiyah |
| Name of the Institute | Viswakarma University |

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| Date | Day | Hours Spent |
| 15/08/2023 | Day 29 | 3 hours and 15 minutes |
| Description:  **Self-learning Duration : 3 hours**  **Activity Report Duration : 15 minutes**  **Activities:**   1. **Hyperparameter Tuning for Forecasting Model (2 hours):**    * Focused on fine-tuning the hyperparameters of the selected forecasting model.    * Experimented with different combinations of hyperparameters such as learning rate, regularization strength, and number of estimators.    * Utilized techniques like grid search and random search to efficiently explore the hyperparameter space.    * Recorded performance metrics for each combination to objectively compare results. 2. **Model Training and Evaluation (1 hour):**    * Conducted model training using the optimized hyperparameters on the updated dataset.    * Evaluated the model's performance on a separate validation dataset.    * Analyzed metrics including mean squared error, mean absolute error, and R-squared to assess the accuracy and goodness of fit. 3. **Reflective Review (15 minutes):**    * Spent a brief period reflecting on the overall internship journey and the skills acquired.    * Considered the challenges faced and how they were overcome, as well as the accomplishments achieved throughout the project.   **Challenges:** The challenge for today was finding the right balance between model complexity and generalization. It required careful tuning of hyperparameters to prevent overfitting while achieving optimal forecasting performance. | | |