Weekly Progress Report

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Domain: Data science & machine learning

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Week Ending: 01

I. Overview:

This week, the primary focus was on understanding Data science & Machine learning and contributing to machine learning internship projects. Additionally, efforts were made to leverage learning resources for skill enhancement

II. Achievements:

1. Data science & Machine learning Familiarization:

- Explored Data science, Big data, untapped opportunity, how the organization are using data and analytical tools comparison through video section to grasp core functionalities.
- Explored Machine learning, rule based learning, types of machine learning and machine learning process(model building) through video section to grasp core functionalities.
- Successfully learned data science and machine learning basics.

2. Data science and machine learning Project Contributions:

Name of the project:-

- Contributed code to SmartCity Traffic Forecast with a focus on The vision is to convert it into a digital and intelligent city to improve the efficiency of services for the citizens.

3.Learning Machine learning:

- Understanding the importance of analyzing traffic patterns, including variations on holidays and special occasions, and the significance of integrating data science into urban planning.
- Applied Advanced analyzing traffic patterns

III. Challenges:

1. Data science Integration:

- Encountered challenges during Data science integration with traffic patterns including variations on holidays and special occasions.
-Integrating data from various sources such as traffic cameras, sensors, historical data, and event calendars to analyze and forecast traffic patterns effectively.
- Ongoing efforts to troubleshoot and ensure successful integration.

2. Project Complexity:

- Faced complexity in understanding traffic patterns of the project.
-Moderate to high, considering the need for analyzing diverse data sources, handling seasonal variations, and predicting traffic peaks accurately.
- Seeking guidance to overcome challenges and enhance understanding.

IV. Learning Resources:

1. Data science Documentation:

- Utilized Data science official documentation for reference and troubleshooting.
- Attended relevant webinars and online tutorials to deepen understanding.

2. Machine Learning Resources:

- Engaged with online webinars to strengthen Machine learning skills.
- Utilize machine learning algorithms for time series forecasting, study urban planning principles, and explore data visualization techniques for communicating insights effectively.

V. Next Week's Goals:

1. Data science Enhancement:

- Address integration challenges and explore advanced Data science features.
- Collaborate with peers to contribute to Data science improvement discussions.

Machine learning Project Development:

- Tackle more complex tasks within the Machine learning project to increase contribution.
- Seek feedback from mentors and peers for continuous improvement.

Goals:

- Gather and clean historical traffic data, explore different forecasting models, and initiate discussions with urban planners to understand future infrastructure projects and their impact on traffic patterns.

VI. Additional Comments:

"Include any additional comments or observations regarding overall progress, collaboration, or notable experiences during the week."