

Weekly Progress Report

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Domain: Data Science

Date of submission: 04th Jun, 2024

Week Ending: 04

I. Overview:

This week marked a significant shift towards in-depth machine learning exploration. The focus transitioned from statistical foundations to understanding and applying machine learning algorithms relevant to my project.

II. Achievements:

1. Diligently reviewed the provided slides and video on machine learning, gaining a comprehensive understanding of core concepts like supervised vs. unsupervised learning, model evaluation metrics, and the machine learning workflow.
2. Successfully completed the machine learning quiz, demonstrating my grasp of fundamental machine learning concepts.
3. Leveraging the newfound knowledge, I finalized the selection of relevant machine learning algorithms for my project, considering factors like data characteristics and project goals.
4. Initiated data preparation tasks for machine learning, potentially including feature engineering techniques based on statistical insights from Week 3.
5. Began exploring the chosen machine learning algorithms in detail, utilizing the provided book, online resources like Scikit-learn documentation, and potential training sessions offered by the internship.

III. Challenges:

1. The sheer variety of machine learning algorithms and their intricacies presented a learning curve that required focused effort.
2. Balancing data preparation tasks alongside diving into the complexities of machine learning algorithms demanded effective time management.

IV. Learning Resources:

1. The provided slides and video on machine learning served as a springboard for understanding core machine learning concepts.
2. The machine learning quiz helped gauge my comprehension of the fundamental principles.
3. The data science book remained a valuable reference for practical implementation of machine learning algorithms.
4. Continued exploration of online resources like Scikit-learn documentation proved beneficial for specific algorithm implementation details.
5. Discussions with mentors provided guidance in selecting appropriate algorithms and navigating the challenges of data preparation for machine learning tasks.

V. Next Week's Goals:

1. Continue familiarizing myself with the chosen machine learning algorithms, focusing on their implementation steps and hyperparameter tuning strategies.
2. Finalize the data preparation process, ensuring the data is ready for model training and evaluation.
3. Begin building the initial machine learning model(s) using the chosen algorithms and the prepared data.
4. Evaluate the performance of the initial model(s) using appropriate metrics and identify potential areas for improvement.

VI. Additional Comments:

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