

Weekly Report: Imtiaz Alpha AI

Week-03 (May 05 - May 10)

Task 1. Machine Learning Specialization

Course 2: Advance Machine Learning Algorithms

- Successfully completed the full course, including documentation
- Conducted an in-depth review of neural network layers and hyperparameters.
- Gained a strong understanding of forward propagation through hands-on coding exercises.
- Explored efficient implementations of neural networks using numpy and tensorflow.
- Reviewed matrix multiplication concepts with practical coding tasks.
- Implemented a neural network model using TensorFlow, utilizing modular functions to design the architecture and compile the model before training. Also investigated the internal workings of these functions.
- Studied the integration of softmax regression within neural networks for multiclass classification.
- Gained practical experience with the decision tree algorithm through applied exercises.

Task 2: Attended session on Machine Learning

- Reviewed concepts of machine learning and pipeline
- Reviewed full end to end pipeline of machine learning project

- Started working on the assigned project of **Tesla Stock Price Prediction**
- Implemented Linear Regression, Decision Tree and Random Forest model for the stock price prediction