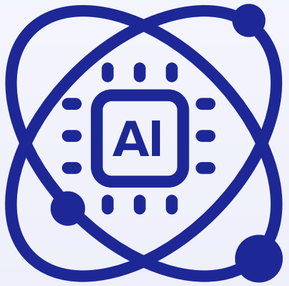
Google-DGC METU

TensorFlow Implementation of Various Models

Presented by AI/ML Team



Week-4

- Creating, training and evaluating various models using TensorFlow

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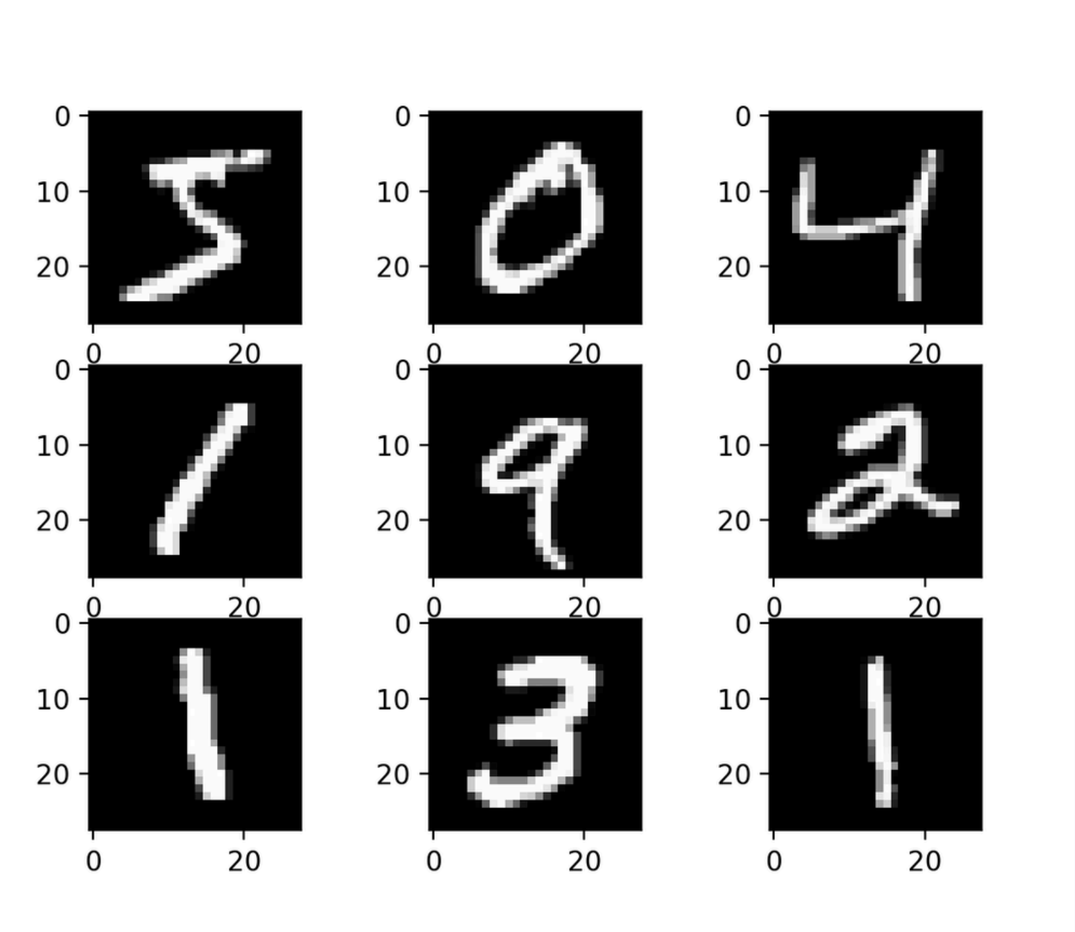
Linear Regression

Example 1:
House Insurance

Linear Regression Problems Hyperparameter Table

Hyperparameter	Typical value
Input layer	Layer: Input - Shape: (num_features)
Output layer	Layer: Dense - Neurons: 1 - Activation: Linear
Loss function	MAE, MSE, Huber
Optimizer	Adam, SGD, RMSprop

Multi-Class Classification



Example 2: Handwritten Digit Classifier

Multi-class Image Classification Problems Hyperparameter Table

Hyperparameter	Typical value
Input layer	Layer: Input - Shape: (height, width, channels)
Output layer	Layer: Dense - Neurons: n_classes - Activation: Softmax
Loss function	Categorical Cross-Entropy, Sparse Categorical Cross-Entropy
Optimizer	Adam

Binary Classification(0-1)

Example 3:

Cat - Dog Classifier

Binary Image Classification Problems Hyperparameter Table

Hyperparameter	Typical value
Input layer	Layer: Input - Shape: (height, width, channels)
Output layer	Layer: Dense - Neurons: 1 - Activation: Sigmoid
Loss function	Binary Cross-Entropy
Optimizer	Adam

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