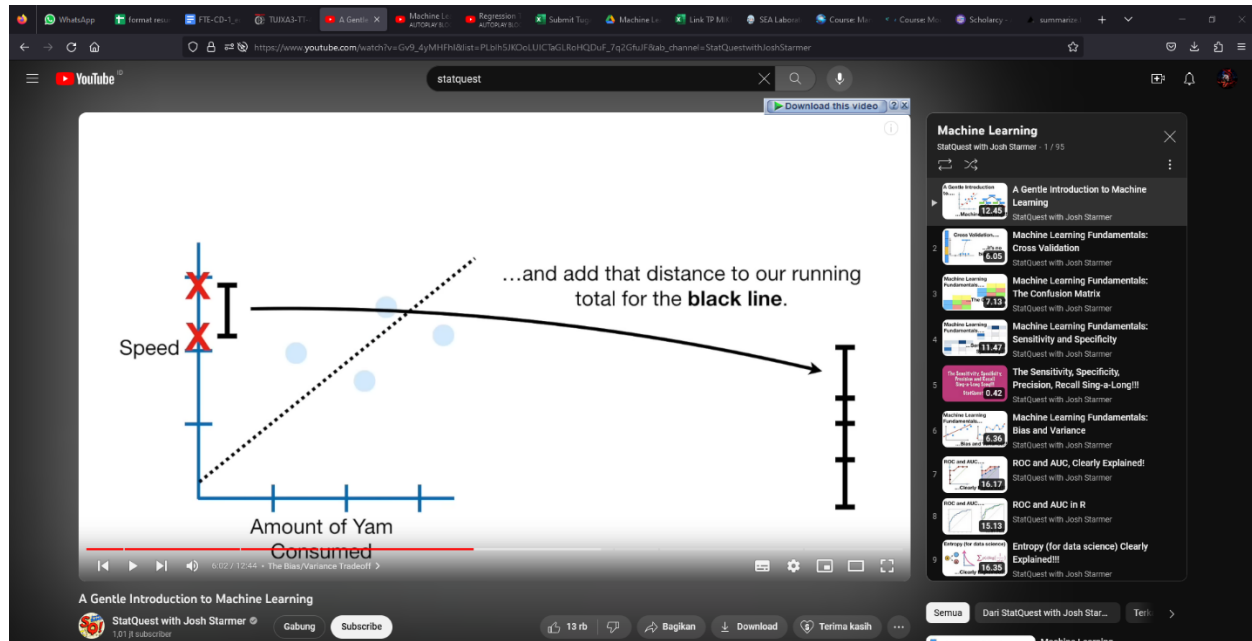


Nama : Muhammad Nur Maajid

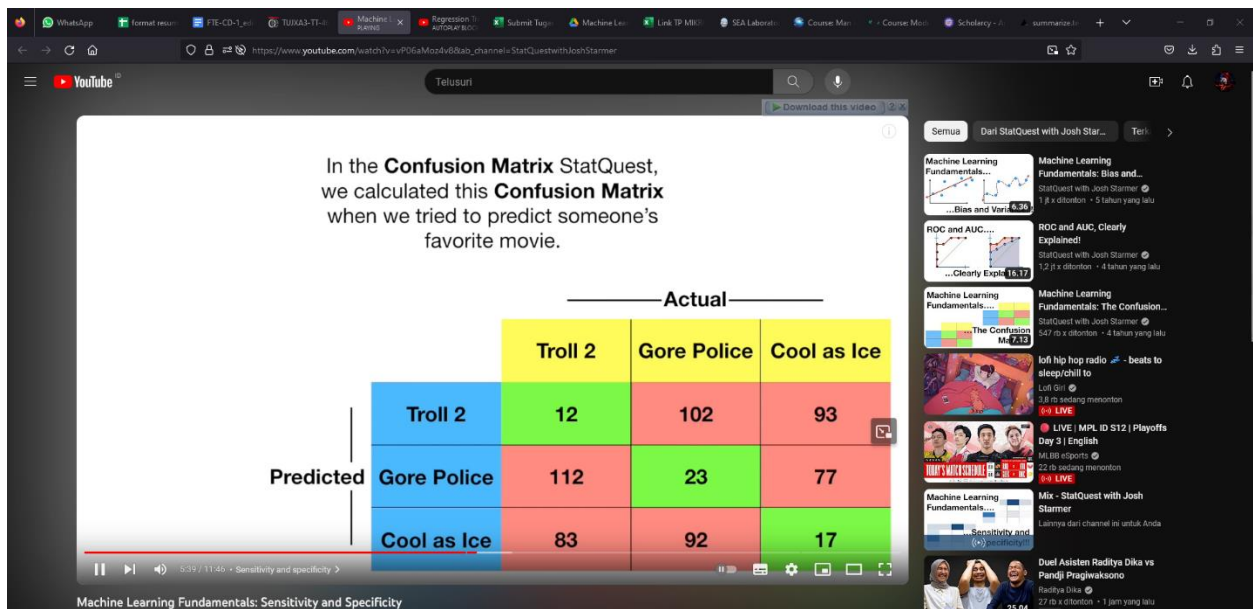
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A Gentle Introduction to Machine Learning



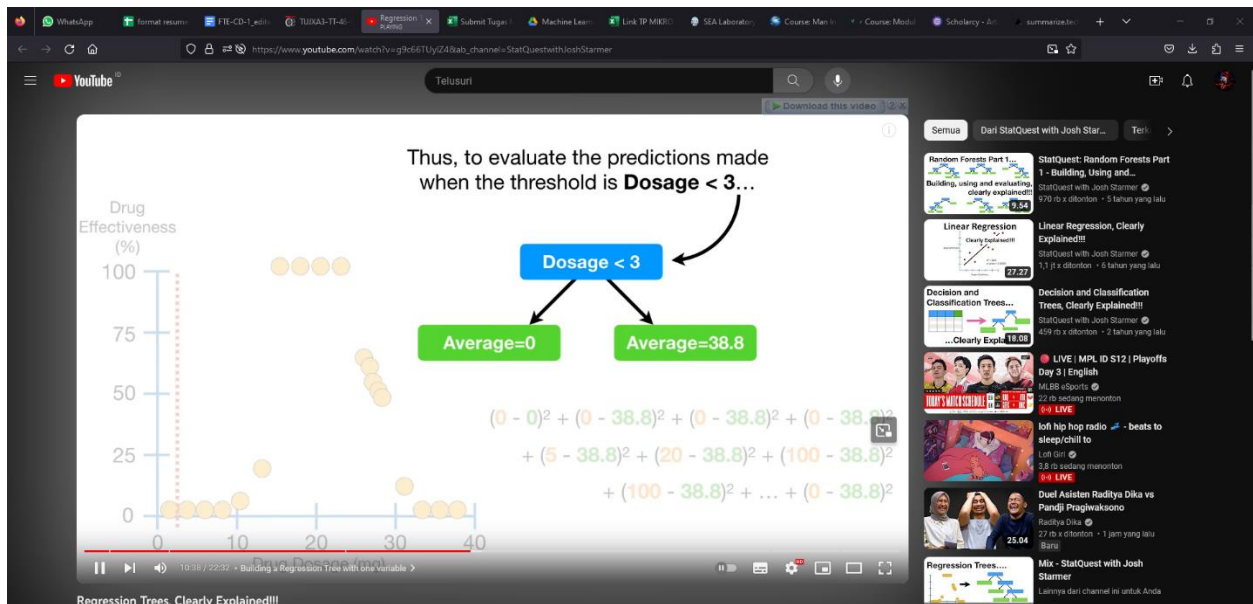
the video provides examples of decision trees and black lines as types of machine learning methods, with the purpose of making predictions. The video stresses the importance of training data and testing data in making these predictions and evaluating the accuracy of different machine learning models. By providing these examples and introducing key concepts, describes how to evaluate machine learning methods using testing data. They use the example of predicting running speed based on yam consumption, comparing the performance of a simple black line model to a more complex green squiggle model. They stress the importance of not being deceived by how well a model fits the training data, and instead prioritizing how well it performs with testing data.

Machine Learning Fundamentals: Sensitivity and Specificity



discusses sensitivity and specificity, which are useful metrics for interpreting a confusion matrix with two or more rows and columns. Sensitivity measures the percentage of true positives (patients with a disease that were correctly identified) and is calculated by dividing the number of true positives by the sum of true positives and false negatives. Specificity measures the percentage of true negatives (patients without a disease that were correctly identified) and is calculated by dividing the number of true negatives by the sum of true negatives and false positives. Starmer uses an example of logistic regression and a random forest model to demonstrate the calculation of sensitivity and specificity values and how to interpret them.

Regression Trees, Clearly Explained!!!



A regression tree is a graphical tool used to make predictions about drug effectiveness. The tree is built from the top down, starting with the observation with the smallest dosage. The tree splits the observations into two groups based on whether the dosage is less than 3. The predictions made by the tree for drug effectiveness for points with dosage greater than or equal to 3 are 38.8. egression trees are used to make predictions about future events based on past events. The tree divides the data into two groups, evaluates the predictions for each group, and uses the group with the lowest sum of squared residuals as the prediction for the entire group. This observation has 20% drug effectiveness and the tree predicts that it will remain that way.