Machine Learning 101 Report

On January 9th, from 7:00 PM to 8:30 PM, **Anuj Garg**, a distinguished Tech Lead at Code for Cause and an ex-Google Engineer, conducted an enlightening session titled Machine Learning 101. The event aimed to introduce participants to the foundational concepts of artificial intelligence (AI) and machine learning (ML).

The session commenced with a comprehensive overview of supervised and unsupervised learning, providing attendees with a solid understanding of these fundamental ML paradigms. Anuj emphasized the pivotal role of numerical representation in ML, setting the stage for a deep dive into practical applications.
Anuj demonstrated basic operations using the NumPy library, showcasing its significance in handling numerical data efficiently. The session reached hands-on engagement as the speaker illustrated the loading and visualization of a dataset containing handwritten digits using scikit-learn, offering participants a tangible connection to real-world ML applications.

A pivotal moment in the session was the introduction of a decision tree classifier as a simple yet powerful ML model. Anuj guided the audience through the process of training, testing, and evaluating the model's accuracy, demystifying the core steps involved in implementing machine learning algorithms.

The session reached its zenith with a captivating demonstration of using the trained model to make predictions for specific images. Anuj took it a step further by showcasing the deployment of the model with Streamlit, illustrating the practicality of integrating machine learning solutions into real-world applications.