Machine Learning Study Plan with YouTube Video Resources

Module 1: Introduction to Machine Learning

* **Video:** "Machine Learning Crash Course | Google Developers" (https://www.youtube.com/watch?v=eWy0vlcCpIA)
* **Book:** "Machine Learning Yearning" by Andrew Ng (https://www.deeplearning.ai/machine-learning-yearning/)

Module 2: Supervised Learning

* **Video:** "Linear Regression in Machine Learning | Simplilearn" (https://www.youtube.com/watch?v=nBV83e-a_Dg)
* **Video:** "Decision Trees in Machine Learning | Simplilearn" (https://www.youtube.com/watch?v=aK_p7Z2358U)
* **Course:** "Supervised Machine Learning" by edX (https://www.edx.org/learn/supervised-machine-learning)

Module 3: Unsupervised Learning

* **Video:** "Clustering in Machine Learning | K-Means, Hierarchical Clustering | Simplilearn" (https://www.youtube.com/watch?v=83iq7NOdmqk)
* **Video:** "Principal Component Analysis (PCA) | Machine Learning | Simplilearn" (https://www.youtube.com/watch?v=2F1hH4n5m4w)
* **Article:** "A Beginner's Guide to Principal Component Analysis (PCA)"

(https://www.coursera.org/learn/pca-for-beginners)

Module 4: Model Evaluation and Selection

* **Video:** "Model Selection and Evaluation in Machine Learning | Simplilearn" (https://www.youtube.com/watch?v=57cfB3lpFGI)
* **Book:** "Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow" by Aurélien Géron (https://www.oreilly.com/library/view/hands-on-machine/9781492032649/)

Module 5: Practical Applications

* **Video:** "Machine Learning Projects for Beginners | End-to-End Project | Simplilearn" (https://www.youtube.com/watch?v=x4l5KdS9W2I)
* **Video:** "How to Build a Machine Learning Model in Python | Coursera" (https://www.coursera.org/lecture/machine-learning/how-to-build-a-machine-learning-model-in-python-gnsc8)
* **Course:** "Machine Learning for Business Professionals" by Coursera (https://www.coursera.org/specializations/machine-learning-business)