**MACHINE LEARNING MODELS**

Here's a list of machine learning models along with examples of where they are commonly used:

**Linear Regression:**

Example: Predicting the price of a house based on its size, number of bedrooms, and location.

**Logistic Regression:**

Example: Predicting whether an email is spam or not spam based on features like sender, subject, and content.

**Decision Trees:**

Example: Predicting whether a customer will buy a product based on demographic information and purchase history.

**Random Forests:**

Example: Predicting customer churn in a telecom company based on customer demographics, usage patterns, and customer service interactions.

**Support Vector Machines (SVM):**

Example: Classifying images of handwritten digits in digit recognition systems.

**K-Nearest Neighbors (KNN):**

Example: Recommending movies to users based on the ratings of similar users in a movie recommendation system.

**Naive Bayes:**

Example: Classifying text documents into categories such as spam or not spam, or sentiment analysis of movie reviews.

**Neural Networks (including deep learning):**

Example: Recognizing objects in images, such as detecting pedestrians in autonomous driving systems.

**Gradient Boosting Machines (GBM):**

Example: Predicting customer churn in a subscription-based service based on customer behavior and engagement metrics.

**Clustering Algorithms (e.g., K-Means, DBSCAN):**

Example: Segmenting customers into distinct groups based on purchasing behavior for targeted marketing campaigns.

**Principal Component Analysis (PCA):**

Example: Reducing the dimensionality of high-dimensional data for visualization or feature extraction purposes.

**Reinforcement Learning:**

Example: Training an AI agent to play video games or control robotic systems through trial and error.

These are just a few examples, and there are many more machine learning models and algorithms used in various applications across different domains.