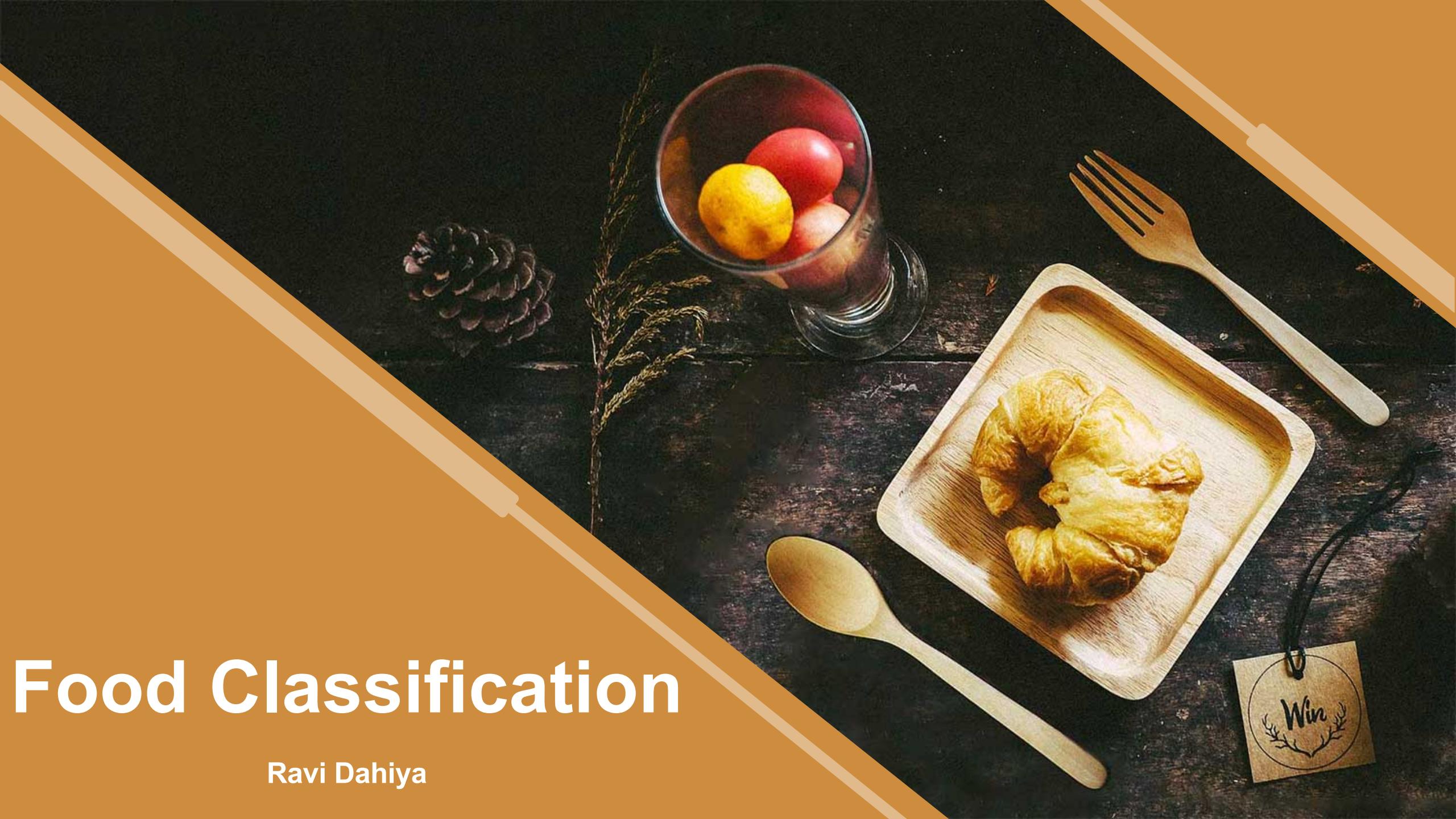


Food Classification

Ravi Dahiya





Business Problems

01 Food Classification

To classify the food on the basis of the provided image

02 Nutrition Information

Provide the nutrition information of the classified item

03 Insulin Units

Provide number of insulin units required after taking the food

A photograph of four loaves of bread on a dark, speckled surface. One loaf is in the foreground, two are in the middle ground, and one is in the background. The bread has a golden-brown crust and some flour is scattered around them.

Approach

Data



Pasta with meat sauce



Chicken Breast



Omlette with Potatoes



Roasted Pork



Scrambled Eggs

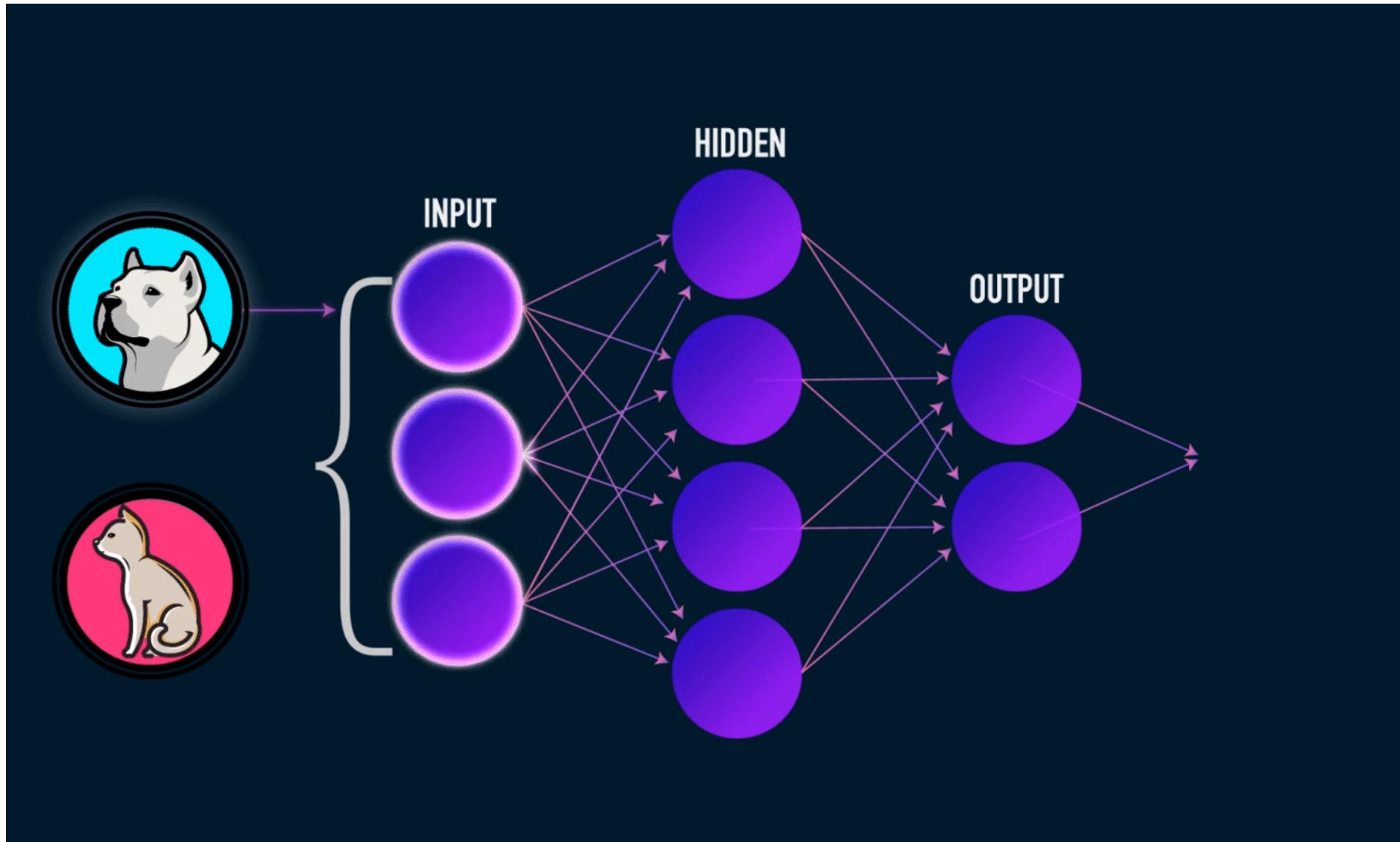


Chicken Wings

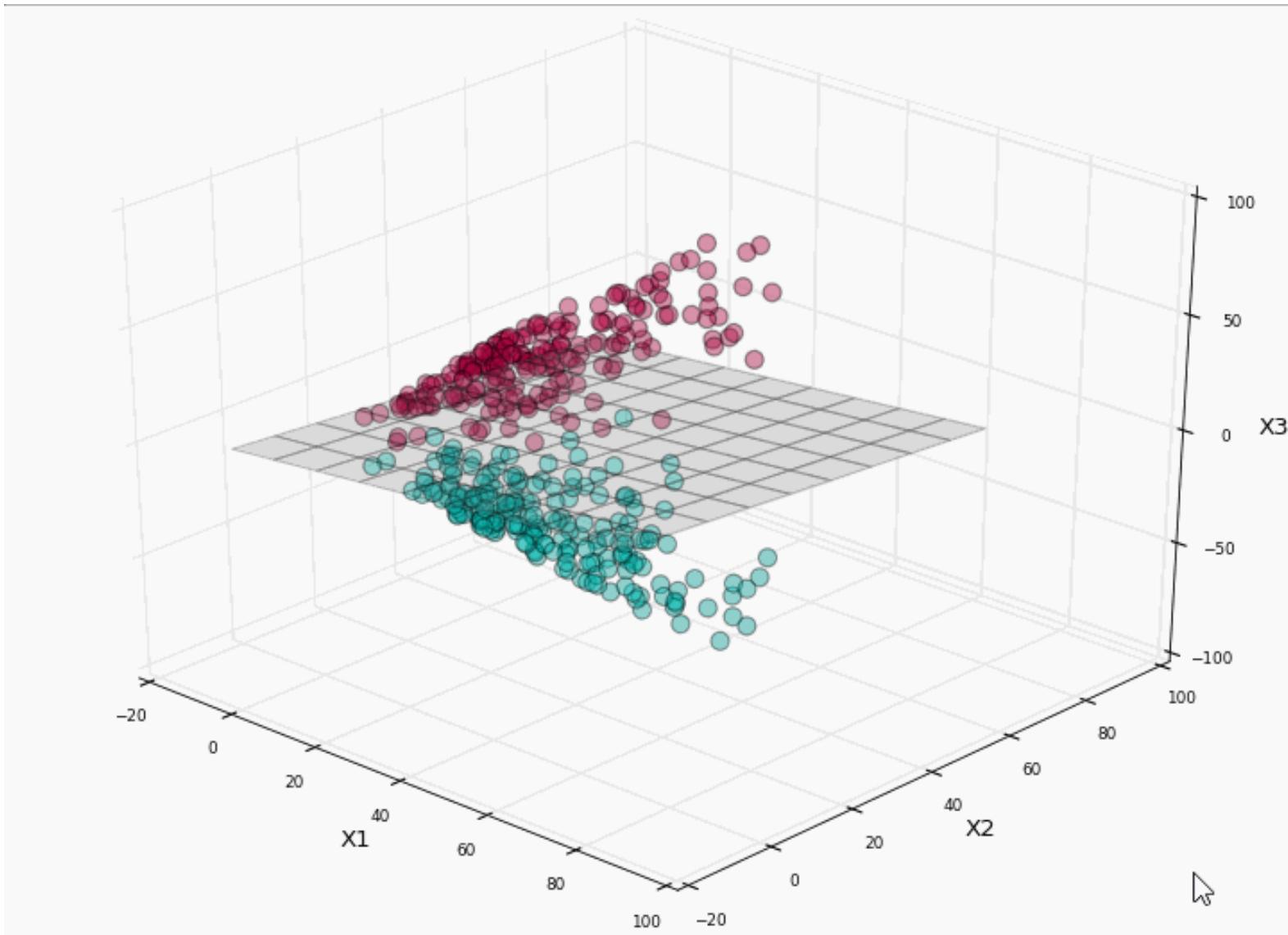


Chicken Curry

Convolution Neural Networks



Support Vector Machines



The App (SVM)



Food Classification

Choose File no file selected

Submit



Predicted Category: Scrambled eggs
Nutrition Values: Per 100g - Calories: 212kcal | Fat: 16.18g | Carbs: 2.08g | Protein: 13.84g

Applications



Weight Watchers

As you get nutrition information, you will be able to calculate the calories that you are taking



Diabetic Patients

As the app provides information about the amount of carbs in the food, diabetic patients will be able to calculate the units of insulin. For example (divide the grams of carbs by 20)



Pitfalls

Misclassification

Current Accuracy of 42 percent

Cost of misclassification

Financial and health implications of taking wrong amount of insulin dosage

Always consult the expert



A dark, speckled surface, possibly a baking tray or table, is dusted with white flour. Three loaves of bread are placed on it: a long, slender baguette on the left, a smaller round loaf in the center, and a rectangular loaf with visible seeds on the right.

THANK YOU
