

**Project Title** - Underwater object detection using SONAR

**Objective** - Using the sonar data detecting an unknown object is a Rock or a Mine

**Some Overview :**

Sonar (sound navigation ranging) is a technique that uses sound propagation (usually underwater, as in submarine navigation) to navigate, communicate with or detect objects on or under the surface of the water, such as other vessels.

The data set (sonar.all-data) contains the response metrics for 60 separate sonar frequencies sent out against a known mine field (and known rocks). These frequencies are then labeled with the known object they were beaming the sound at (either a rock or a mine).

**Goal of the project :**

Our main goal is to create a machine learning model capable of detecting the difference between a rock or a mine based on the response of the 60 separate sonar frequencies.

**Data Source:** [https://archive.ics.uci.edu/ml/datasets/Connectionist+Bench+\(Sonar,+Mines+vs.+Rocks\)](https://archive.ics.uci.edu/ml/datasets/Connectionist+Bench+(Sonar,+Mines+vs.+Rocks))