## A Study on Arrhythmia via ECG Signal Classification Using the Convolutional Neural Network (CNN)

Here, I firstly load and preprocess the ECG data.Then I split the data into train and test sets, and reshape the input data for the CNN. Next, I define a CNN architecture consisting of convolutional layers, average plotting layers, flatten layers, Dropout layers and dense layers for feature extraction. After compile the model using the mean squared error loss. Finally, we extract the features from the ECG signals by applying the trained CNN model to the input signals. The resulting features can then be used for further analysis or classification tasks.

  
  
  
  
  
  
  
  
  
  
