**MATLAB Project**

In part 1 of this project, I built a MATLAB application which uses various ways to detect R peaks in an ECG signal. Two MATLAB scripts (ECG\_Peak\_Detection.m and ECG\_Peak\_Detection\_Modified.m) written to detect R peaks using thresholding and peak-to-valley height.

A picture containing diagram

Description automatically generatedIn this project I modified various MATLAB scripts to detect and calculate number of S valleys and S-S interval (see figure below) in ECG signals.

The script should ask the user for the following inputs: ECG file to be analyzed.

Output of the script: Number of S valleys and a plot of S-S interval as a function of time.

Script Information: I used various functions and programming commands in the MATLAB Primer. For testing purposes I used ‘findpeaks’ to verify results of the submitted script.