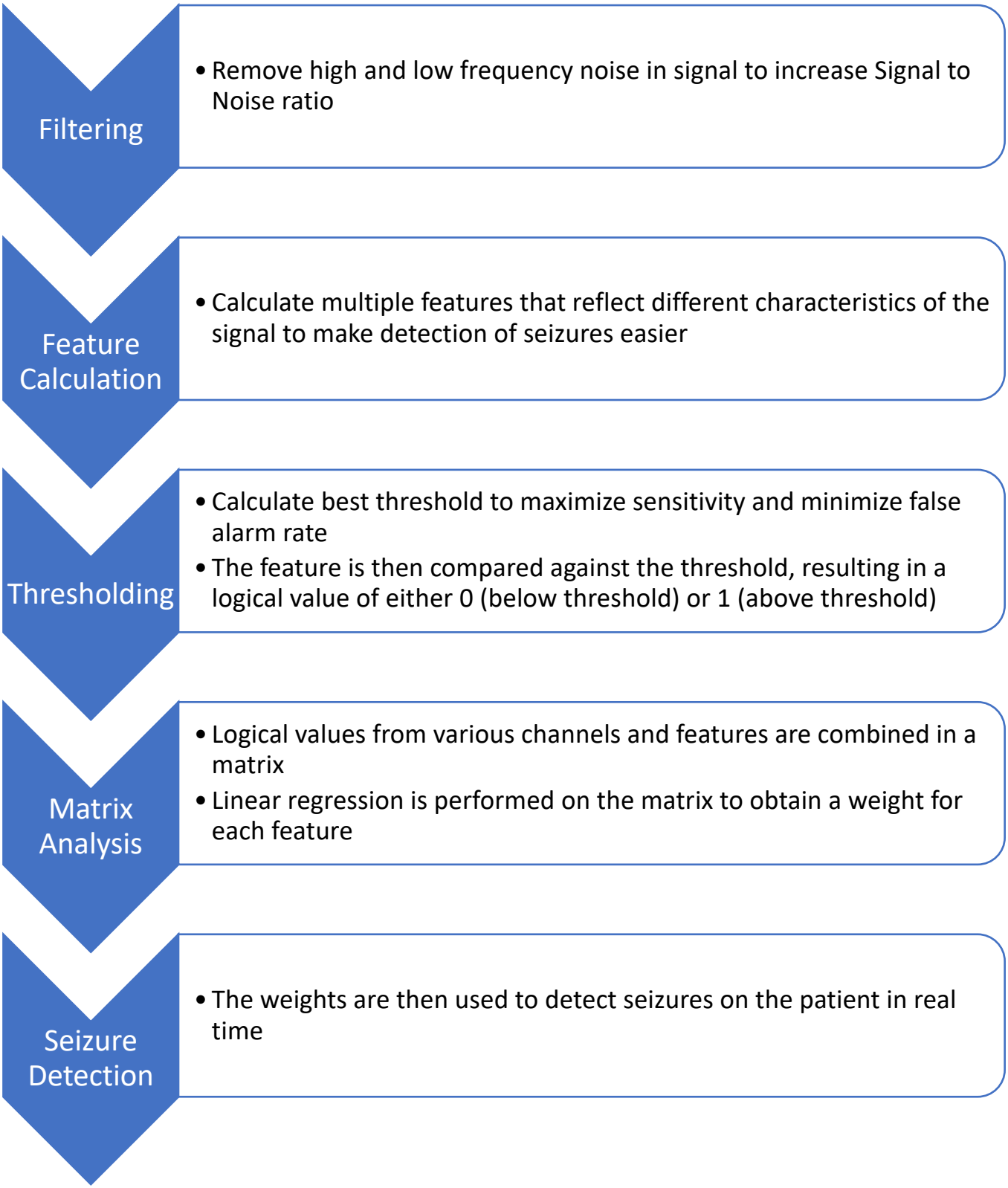
Filtering
• Remove high and low frequency noise in signal to increase Signal to Noise ratio
Feature Calculation
• Calculate multiple features that reflect different characteristics of the signal to make detection of seizures easier
Thresholding
• Calculate best threshold to maximize sensitivity and minimize false alarm rate
• The feature is then compared against the threshold, resulting in a logical value of either 0 (below threshold) or 1 (above threshold)
Matrix Analysis
• Logical values from various channels and features are combined in a matrix
• Linear regression is performed on the matrix to obtain a weight for each feature
Seizure Detection
• The weights are then used to detect seizures on the patient in real time