

Time domain heart rate and heart rate variability analysis

You can use any method you can find online including github repositories. Use the same signals as before.

1. Create peak detection algorithm based on finding local maximums. (it does not have to be complicated) No need for two different algorithms for ppg and ecg, one suffices.
2. Compute heart rate and remove beat locations that are physiologically impossible based on beat interval.
3. Estimate heart rate variability using Pointcare and Lorentz plots.
4. Compute average time delay between ecg R-peak and PPG foot (peak onset)