EDA

* FFT
* Add filtered data cvxEDA on slides

ECG

* Powerline removal with notch filter 50Hz/60Hz
* Correlate accelerometer and respiration data
* FFT

Respiration-Accelerometer

* Phase synchrony

General:

* Metrics
* Correlate cross-subjects
* Apply Deep Learning

{'MaxRR': 17.667053439524736, 'MinRR': 0.35000105868759057, 'AvgRR': 0.9633711450640489, 'MaxBPM': 171.42805288927923, 'MinBPM': 3.3961520638052742, 'AvgBPM': 62.28129242547632, 'SDNN': 1.8785184017639118, 'SD1': 1.232831305935816, 'SD2': 2.353250888162134, 'SD1/SD2': 0.5238843474520667, 'NN20': 186, 'pNN20': 62, 'NN50': 82, 'pNN50': 27, 'ULF\_Power': 0.0, 'VLF\_Power': 38.62749, 'LF\_Power': 5.85524, 'HF\_Power': 0.07531, 'LF\_HF\_Ratio': 77.74850617447882, 'Total\_Power': 44.558040000000005}

{'MaxRR': 0.902004072253149, 'MinRR': 0.27300123251120567, 'AvgRR': 0.7351836469823828, 'MaxBPM': 219.7792275444662, 'MinBPM': 66.5185466958301, 'AvgBPM': 81.6122614346423, 'SDNN': 0.0761263195620586, 'SD1': 0.05098658346587891, 'SD2': 0.09481983635614595, 'SD1/SD2': 0.5377206439628506, 'NN20': 25, 'pNN20': 40, 'NN50': 9, 'pNN50': 14, 'ULF\_Power': 0.0, 'VLF\_Power': 0.0, 'LF\_Power': 0.00289, 'HF\_Power': 0.0001, 'LF\_HF\_Ratio': 28.900000000000002, 'Total\_Power': 0.00299}

{'MaxRR': 0.6470029210064183, 'MinRR': 0.46100208127350584, 'AvgRR': 0.5224661268794948, 'MaxBPM': 130.15125622481273, 'MinBPM': 92.73528457440271, 'AvgBPM': 114.83998083925317, 'SDNN': 0.03234927398756528, 'SD1': 0.02080826544442235, 'SD2': 0.04074269436647009, 'SD1/SD2': 0.5107238430835559, 'NN20': 157, 'pNN20': 37, 'NN50': 26, 'pNN50': 6, 'ULF\_Power': 0.0, 'VLF\_Power': 0.00033, 'LF\_Power': 0.0005, 'HF\_Power': 0.00028, 'LF\_HF\_Ratio': 1.7857142857142858, 'Total\_Power': 0.0011099999999999999}

{'MaxRR': 1.0910049389087249, 'MinRR': 0.21000095066068525, 'AvgRR': 0.8125896160405885, 'MaxBPM': 285.7129923042426, 'MinBPM': 54.99516808788681, 'AvgBPM': 73.83800975990201, 'SDNN': 0.1730459376693045, 'SD1': 0.11752173447449703, 'SD2': 0.2146588805845299, 'SD1/SD2': 0.5474813534593947, 'NN20': 141, 'pNN20': 50, 'NN50': 68, 'pNN50': 24, 'ULF\_Power': 0.0, 'VLF\_Power': 0.01184, 'LF\_Power': 0.01988, 'HF\_Power': 0.03864, 'LF\_HF\_Ratio': 0.5144927536231884, 'Total\_Power': 0.07036}

{'MaxRR': 1.347005282373658, 'MinRR': 0.7550029607959345, 'AvgRR': 0.9957518723889782, 'MaxBPM': 79.4698870276577, 'MinBPM': 44.54325516398091, 'AvgBPM': 60.25597507142998, 'SDNN': 0.1347084986809807, 'SD1': 0.09868216509723106, 'SD2': 0.16295579009501437, 'SD1/SD2': 0.6055763040987534, 'NN20': 179, 'pNN20': 70, 'NN50': 93, 'pNN50': 36, 'ULF\_Power': 0.0, 'VLF\_Power': 0.01127, 'LF\_Power': 0.00192, 'HF\_Power': 0.00087, 'LF\_HF\_Ratio': 2.206896551724138, 'Total\_Power': 0.01406}

{'MaxRR': 0.969004213061794, 'MinRR': 0.5910025695764034, 'AvgRR': 0.799695233208198, 'MaxBPM': 101.52240123592787, 'MinBPM': 61.919235428725386, 'AvgBPM': 75.02858277558245, 'SDNN': 0.06995255337045186, 'SD1': 0.05554890948019172, 'SD2': 0.08185986868822415, 'SD1/SD2': 0.6785853724217205, 'NN20': 179, 'pNN20': 61, 'NN50': 51, 'pNN50': 17, 'ULF\_Power': 0.0, 'VLF\_Power': 0.00163, 'LF\_Power': 0.00072, 'HF\_Power': 0.00066, 'LF\_HF\_Ratio': 1.090909090909091, 'Total\_Power': 0.00301}

{'MaxRR': 13.531034873801246, 'MinRR': 0.22900059020770414, 'AvgRR': 0.8645888424949877, 'MaxBPM': 262.00805834421584, 'MinBPM': 4.43425063637755, 'AvgBPM': 69.3971481598756, 'SDNN': 0.808878124203554, 'SD1': 0.41302357843495646, 'SD2': 1.0667610619472871, 'SD1/SD2': 0.38717534147807653, 'NN20': 201, 'pNN20': 65, 'NN50': 108, 'pNN50': 35, 'ULF\_Power': 0.0, 'VLF\_Power': 0.01012, 'LF\_Power': 0.00589, 'HF\_Power': 0.00159, 'LF\_HF\_Ratio': 3.7044025157232703, 'Total\_Power': 0.0176}