tBodyAcc

1 tBodyAcc-mean()-X  
2 tBodyAcc-mean()-Y  
3 tBodyAcc-mean()-Z

4 tBodyAcc-std()-X

26 tBodyAcc-arCoeff()-X,1

29 tBodyAcc-arCoeff()-X,4

30 tBodyAcc-arCoeff()-Y,1

33 tBodyAcc-arCoeff()-Y,4

34 tBodyAcc-arCoeff()-Z,1

37 tBodyAcc-arCoeff()-Z,4

38 tBodyAcc-correlation()-X,Y  
39 tBodyAcc-correlation()-X,Z  
40 tBodyAcc-correlation()-Y,Z

tBodyAccJerk

81 tBodyAccJerk-mean()-X  
107 tBodyAccJerk-arCoeff()-X,2  
108 tBodyAccJerk-arCoeff()-X,3  
109 tBodyAccJerk-arCoeff()-X,4

112 tBodyAccJerk-arCoeff()-Y,3  
113 tBodyAccJerk-arCoeff()-Y,4

116 tBodyAccJerk-arCoeff()-Z,3  
117 tBodyAccJerk-arCoeff()-Z,4

118 tBodyAccJerk-correlation()-X,Y  
119 tBodyAccJerk-correlation()-X,Z  
120 tBodyAccJerk-correlation()-Y,Z

tBodyAccMag

210 tBodyAccMag-arCoeff()1  
212 tBodyAccMag-arCoeff()3

tBodyAccJerkMag

236 tBodyAccJerkMag-arCoeff()1  
239 tBodyAccJerkMag-arCoeff()4

tGravityAcc

41 tGravityAcc-mean()-X  
42 tGravityAcc-mean()-Y  
43 tGravityAcc-mean()-Z

44 tGravityAcc-std()-X  
45 tGravityAcc-std()-Y  
46 tGravityAcc-std()-Z

56 tGravityAcc-sma()

63 tGravityAcc-entropy()-X  
64 tGravityAcc-entropy()-Y  
65 tGravityAcc-entropy()-Z

66 tGravityAcc-arCoeff()-X,1  
70 tGravityAcc-arCoeff()-Y,1  
74 tGravityAcc-arCoeff()-Z,1

78 tGravityAcc-correlation()-X,Y  
79 tGravityAcc-correlation()-X,Z  
80 tGravityAcc-correlation()-Y,Z

tBodyGyro

121 tBodyGyro-mean()-X  
122 tBodyGyro-mean()-Y  
123 tBodyGyro-mean()-Z

143 tBodyGyro-entropy()-X  
144 tBodyGyro-entropy()-Y  
145 tBodyGyro-entropy()-Z

146 tBodyGyro-arCoeff()-X,1  
149 tBodyGyro-arCoeff()-X,4  
150 tBodyGyro-arCoeff()-Y,1  
152 tBodyGyro-arCoeff()-Y,3  
153 tBodyGyro-arCoeff()-Y,4  
154 tBodyGyro-arCoeff()-Z,1  
157 tBodyGyro-arCoeff()-Z,4

158 tBodyGyro-correlation()-X,Y  
159 tBodyGyro-correlation()-X,Z  
160 tBodyGyro-correlation()-Y,Z

tBodyGyroJerk

161 tBodyGyroJerk-mean()-X  
162 tBodyGyroJerk-mean()-Y  
163 tBodyGyroJerk-mean()-Z

187 tBodyGyroJerk-arCoeff()-X,2  
188 tBodyGyroJerk-arCoeff()-X,3  
189 tBodyGyroJerk-arCoeff()-X,4  
191 tBodyGyroJerk-arCoeff()-Y,2  
193 tBodyGyroJerk-arCoeff()-Y,4  
196 tBodyGyroJerk-arCoeff()-Z,3  
197 tBodyGyroJerk-arCoeff()-Z,4

198 tBodyGyroJerk-correlation()-X,Y  
199 tBodyGyroJerk-correlation()-X,Z  
200 tBodyGyroJerk-correlation()-Y,Z

tBodyGyroMag

248 tBodyGyroMag-entropy()  
249 tBodyGyroMag-arCoeff()1  
251 tBodyGyroMag-arCoeff()3

tBodyGyroJerkMag

262 tBodyGyroJerkMag-arCoeff()1  
263 tBodyGyroJerkMag-arCoeff()2  
264 tBodyGyroJerkMag-arCoeff()3  
265 tBodyGyroJerkMag-arCoeff()4

fBodyAcc

278 fBodyAcc-min()-X  
279 fBodyAcc-min()-Y  
280 fBodyAcc-min()-Z

291 fBodyAcc-maxInds-X  
292 fBodyAcc-maxInds-Y  
293 fBodyAcc-maxInds-Z

294 fBodyAcc-meanFreq()-X  
295 fBodyAcc-meanFreq()-Y  
296 fBodyAcc-meanFreq()-Z

297 fBodyAcc-skewness()-X

299 fBodyAcc-skewness()-Y

301 fBodyAcc-skewness()-Z

324 fBodyAcc-bandsEnergy()-57,64

fBodyAccJerk

357 fBodyAccJerk-min()-X  
358 fBodyAccJerk-min()-Y  
359 fBodyAccJerk-min()-Z

370 fBodyAccJerk-maxInds-X  
371 fBodyAccJerk-maxInds-Y  
372 fBodyAccJerk-maxInds-Z

376 fBodyAccJerk-skewness()-X

378 fBodyAccJerk-skewness()-Y

380 fBodyAccJerk-skewness()-Z

389 fBodyAccJerk-bandsEnergy()-57,64

403 fBodyAccJerk-bandsEnergy()-57,64

417 fBodyAccJerk-bandsEnergy()-57,64

fBodyAccMag

507 fBodyAccMag-min()

512 fBodyAccMag-maxInds  
513 fBodyAccMag-meanFreq()  
514 fBodyAccMag-skewness()

fBodyAccJerkMag

520 fBodyBodyAccJerkMag-min()

525 fBodyBodyAccJerkMag-maxInds  
526 fBodyBodyAccJerkMag-meanFreq()  
527 fBodyBodyAccJerkMag-skewness()

fBodyGyro

436 fBodyGyro-min()-X  
437 fBodyGyro-min()-Y  
438 fBodyGyro-min()-Z

449 fBodyGyro-maxInds-X  
450 fBodyGyro-maxInds-Y  
451 fBodyGyro-maxInds-Z

452 fBodyGyro-meanFreq()-X  
453 fBodyGyro-meanFreq()-Y  
454 fBodyGyro-meanFreq()-Z

455 fBodyGyro-skewness()-X

457 fBodyGyro-skewness()-Y

459 fBodyGyro-skewness()-Z

481 fBodyGyro-bandsEnergy()-49,56

fBodyGyroMag

532 fBodyBodyGyroMag-max()  
533 fBodyBodyGyroMag-min()

538 fBodyBodyGyroMag-maxInds  
540 fBodyBodyGyroMag-skewness()

fBodyGyroJerkMag

551 fBodyBodyGyroJerkMag-maxInds  
552 fBodyBodyGyroJerkMag-meanFreq()  
553 fBodyBodyGyroJerkMag-skewness()

556 angle(tBodyAccJerkMean),gravityMean)  
557 angle(tBodyGyroMean,gravityMean)  
558 angle(tBodyGyroJerkMean,gravityMean)

Current features - time

Attitude(0, 1, 2), Gravity(3, 4, 5), Gyro(6, 7, 8,),

userAcc(9, 10, 11), gyrojerk(12, 13, 14), userAccJerk(15, 16, 17), userAccMag(18), userAccJerkMag(19), gyroMag(20), gyroJerkMag(21),

Current features - frequency

fBodyAcc(22, 23, 24), fBodyJerkAcc(25, 26, 27), fBodyAccMag(28),

fBodyAccJerkMag(29), fBodyGyro(30, 31, 32), fBodyGyroMag(33), fBodyGyroJerkMag(34)

15 folders \* 24.csv files \* 1500 points / 128 points per row

Expected around 4000 rows of data

To-Do

FFT to extract frequency domain features

Do specific feature extraction for the data columns

Currently no sliding window

Gyro(6, 7, 8,)

userAcc(9, 10, 11)

tBodyGyroMag (12)

tBodyAccMag (13)

fBodyGyro (14, 15, 16)

fBodyGyroMag (17)

fBodyAcc (18, 19, 20)

fBodyAccMag (21)

New

acc (0, 1, 2)

gyro(3, 4, 5)

acc\_mag (6)

gyro\_mag (7)

f\_acc (8, 9, 10)

f\_acc\_mag (11)

f\_gyro (12, 13, 14)

f\_gyro\_mag (15)