

Supplementary Table 1. Description of the 41 engineered features from the raw triaxial accelerometer data.

Feature Description	Size
Mean of the vector magnitude ($v = \sqrt{(x^2 + y^2 + z^2)}$) of triaxial acceleration	1
Standard deviation of the vector magnitude of triaxial acceleration	1
Coefficient of variation of the vector magnitude of triaxial acceleration	1
Minimum of the vector magnitude of the triaxial acceleration	1
Maximum of the vector magnitude of the triaxial acceleration	1
25 th , 50 th , and 75 th percentile of the vector magnitude of the triaxial acceleration	3
Lag in seconds which maximizes the autocorrelation of the vector magnitude of the triaxial acceleration	1
Correlation coefficient between the axial components of the acceleration	3
Mean of the roll ($\tan^{-1}\left(\frac{y}{z}\right)$), yaw ($\tan^{-1}\left(\frac{y}{x}\right)$), and pitch ($\tan^{-1}\left(\frac{x}{z}\right)$) computed from the axial components of the acceleration	3
Standard deviation of the roll ($\tan^{-1}\left(\frac{y}{z}\right)$), yaw ($\tan^{-1}\left(\frac{y}{x}\right)$), and pitch ($\tan^{-1}\left(\frac{x}{z}\right)$) computed from the axial components of the acceleration	3
Roll ($\tan^{-1}\left(\frac{g_y}{g_z}\right)$), yaw ($\tan^{-1}\left(\frac{g_y}{g_x}\right)$), and pitch ($\tan^{-1}\left(\frac{g_x}{g_z}\right)$) computed from the gravity component	3
The highest power and the corresponding frequency obtained from the power spectral density calculated for the vector magnitude of the triaxial acceleration	2
The highest power and the corresponding frequency obtained from the power spectral density calculated for the vector magnitude of the triaxial acceleration which is within the frequency band of 0.3 Hz to 3 Hz	2
Entropy for the frequency domain signal of the vector magnitude of the triaxial acceleration	1
Power in each frequency band between 1 and 15 Hz (fft1-fft15)	15