Data Dictionary - Tidy Data Project

Statistic

Subjectid Subject identifier, variable name not in original data set
(1 to 30)

Activityid Activity identifier, variable name not in original data set

(WALKING,WALKING_UPSTAIRS,WALKING_DOWNSTAIRS,SITTING,STANDING,LAYING)

The variables selected for this database come from the accelerometer and gyroscope 3-axial raw signals tAcc-XYZ and tGyro-XYZ. All Metrics are averages of mean and standard deviation for each signal set.

mean(): Mean value
std(): Standard deviation

Magnitude of these three-dimensional signals were calculated using the Euclidean norm (tBodyAccMag, tGravityAccMag, tBodyAccJerkMag, tBodyGyroMag, tBodyGyroJerkMag).

Fast Fourier Transform (FFT) was applied to some of these signals producing fBodyAcc-XYZ, fBodyAccJerk-XYZ, fBodyGyro-XYZ, fBodyAccJerkMag, fBodyGyroMag, fBodyGyroJerkMag. ('f' to indicate frequency domain signals).

tBodyAcc-mean()-X
tBodyAcc-mean()-Y
tBodyAcc-mean()-Z

tGravityAcc-mean()-X
tGravityAcc-mean()-Y
tGravityAcc-mean()-Z

tBodyAccJerk-mean()-X
tBodyAccJerk-mean()-Y
tBodyAccJerk-mean()-Z

tBodyGyro-mean()-X
tBodyGyro-mean()-Y
tBodyGyro-mean()-Z

tBodyGyroJerk-mean()-X
tBodyGyroJerk-mean()-Y
tBodyGyroJerk-mean()-Z

tBodyAccMag-mean()
tGravityAccMag-mean()
tBodyAccJerkMag-mean()
tBodyGyroMag-mean()
tBodyGyroJerkMag-mean()

fBodyAcc-mean()-X
fBodyAcc-mean()-Y
fBodyAcc-mean()-Z

fBodyAcc-meanFreq()-X
fBodyAcc-meanFreq()-Y
fBodyAcc-meanFreq()-Z

fBodyAccJerk-mean()-X
fBodyAccJerk-mean()-Y
fBodyAccJerk-mean()-Z

fBodyAccJerk-meanFreq()-X
fBodyAccJerk-meanFreq()-Y
fBodyAccJerk-meanFreq()-Z

fBodyGyro-mean()-X
fBodyGyro-mean()-Y
fBodyGyro-mean()-Z

fBodyGyro-meanFreq()-X
fBodyGyro-meanFreq()-Y
fBodyGyro-meanFreq()-Z

fBodyAccMag-mean()
fBodyAccMag-meanFreq()

fBodyBodyAccJerkMag-mean()
fBodyBodyAccJerkMag-meanFreq()

fBodyBodyGyroMag-mean()
fBodyBodyGyroMag-meanFreq()

fBodyBodyGyroJerkMag-mean()

fBodyBodyGyroJerkMag-meanFreq()

tBodyAcc-std()-X
tBodyAcc-std()-Y
tBodyAcc-std()-Z

tGravityAcc-std()-X
tGravityAcc-std()-Y
tGravityAcc-std()-Z

tBodyAccJerk-std()-X
tBodyAccJerk-std()-Y
tBodyAccJerk-std()-Z

tBodyGyro-std()-X
tBodyGyro-std()-Y
tBodyGyro-std()-Z

tBodyGyroJerk-std()-X
tBodyGyroJerk-std()-Y
tBodyGyroJerk-std()-Z
tBodyAccMag-std()
tGravityAccMag-std()
tBodyAccJerkMag-std()
tBodyGyroMag-std()
tBodyGyroJerkMag-std()
fBodyAcc-std()-X
fBodyAcc-std()-Y
fBodyAcc-std()-Z
fBodyAccJerk-std()-X
fBodyAccJerk-std()-Y
fBodyAccJerk-std()-Z
fBodyGyro-std()-X
fBodyGyro-std()-Y
fBodyGyro-std()-Z
fBodyAccMag-std()
fBodyBodyAccJerkMag-std()
fBodyBodyGyroMag-std()
fBodyBodyGyroJerkMag-std()

subjectid	activityid	tBodyAcc-mean()-X	tBodyAcc-mean()-Y	tBodyAcc-mean()-Z	tGravityAcc-mean()-X	tGravityAcc-mean()-Y	tGravityAcc-mean()-Z	tBodyAccJerk-mean()-X	tBodyAccJer
1	WALKING	0.2773308	-0.017383819	-0.11114810	0.9352232	-0.28216502	-0.068102864	0.07404163	0.0
1	WALKING_UPSTAIRS	0.2554617	-0.023953149	-0.09730200	0.8933511	-0.36215336	-0.075402940	0.10137273	0.0
1	WALKING_DOWNSTAIRS	0.2891883	-0.009918505	-0.10756619	0.9318744	-0.26661034	-0.062119959	0.05415532	0.0
1	SITTING	0.2612376	-0.001308288	-0.10454418	0.8315099	0.20441159	0.332043703	0.07748252	-0.0
1	STANDING	0.2789176	-0.016137590	-0.11060182	0.9429520	-0.27298383	0.013490582	0.07537665	0.0
1	LAYING	0.2215982	-0.040513953	-0.11320355	-0.2488818	0.70554977	0.445817720	0.08108653	0.0
2	WALKING	0.2764266	-0.018594920	-0.10550036	0.9130173	-0.34660709	0.084727087	0.06180807	0.0
2	WALKING_UPSTAIRS	0.2471648	-0.021412113	-0.15251390	0.7907174	-0.41621489	-0.195888239	0.07445078	-0.0
2	WALKING_DOWNSTAIRS	0.2776153	-0.022661416	-0.11681294	0.8618313	-0.32578010	-0.043889016	0.11004062	-0.0
2	SITTING	0.2770874	-0.015687994	-0.10921827	0.9404773	-0.10563002	0.198726769	0.07225644	0.0
2	STANDING	0.2779115	-0.018420827	-0.10590854	0.8969286	-0.37006270	0.129747161	0.07475886	0.0
2	LAYING	0.2813734	-0.018158740	-0.10724561	-0.5097542	0.75253664	0.646834880	0.08259725	0.0
3	WALKING	0.2755675	-0.017176784	-0.11267486	0.9365067	-0.26198636	-0.138107866	0.08147459	0.0
3	WALKING_UPSTAIRS	0.2608199	-0.032410941	-0.11006486	0.8835334	-0.38285115	-0.162943955	0.04268810	0.0
3	WALKING_DOWNSTAIRS	0.2924235	-0.019355408	-0.11613984	0.9390578	-0.22882921	-0.102352758	0.07256893	0.0
3	SITTING	0.2571976	-0.003502998	-0.09835792	0.9010990	0.12730338	0.139020582	0.07260984	0.0
3	STANDING	0.2800465	-0.014337656	-0.10162172	0.9350308	-0.30173513	0.024763107	0.07509006	0.0
3	LAYING	0.2755169	-0.018955679	-0.10130048	-0.2417585	0.83703210	0.488703185	0.07698111	0.0
4	WALKING	0.2785820	-0.014839948	-0.11140306	0.9639997	-0.08585403	0.127764113	0.07835291	0.0
4	WALKING_UPSTAIRS	0.2708767	-0.031980430	-0.11421946	0.9462643	-0.23294430	0.084167538	0.05609719	0.0
4	WALKING_DOWNSTAIRS	0.2799653	-0.009802009	-0.10677752	0.9477319	-0.06208528	0.148714809	0.09718627	0.0
4	SITTING	0.2715383	-0.007163065	-0.10587460	0.8693030	0.21162254	0.110120481	0.07845002	-0.0
4	STANDING	0.2804997	-0.009489111	-0.09615749	0.9561978	-0.07590091	0.166893826	0.07213284	-0.0
4	LAYING	0.2635592	-0.015003184	-0.11068815	-0.4206647	0.91516510	0.341531311	0.09344942	0.0
5	WALKING	0.2778423	-0.017285032	-0.10774178	0.9726250	-0.10044029	0.002476236	0.08458888	-0.0
5	WALKING_UPSTAIRS	0.2684595	-0.032526976	-0.10747145	0.9368218	-0.26594257	-0.023203536	0.07954435	0.0
5	WALKING_DOWNSTAIRS	0.2935439	-0.008501075	-0.10031993	0.9566494	-0.06075783	0.021677791	0.10965060	0.0
5	SITTING	0.2736941	-0.009900835	-0.10854030	0.8807314	0.16844552	0.143006858	0.07495774	-0.0
5	STANDING	0.2825444	-0.007004186	-0.10217110	0.9601887	-0.03871013	0.138638437	0.07251899	-0.0
5	LAYING	0.2783343	-0.018304212	-0.10793760	-0.4834706	0.95489035	0.263644692	0.08481648	0.0

Original non-tidy data may be found at:

https://d396qusza40orc.cloudfront.net/getdata%2Fprojectfiles%2FUCI%20HAR%20Dataset.zip

References:

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The experiments have been carried out with a group of 30 volunteers within an age bracket of 19-48 years. Each person performed six activities (WALKING, WALKING_UPSTAIRS, WALKING_DOWNSTAIRS, SITTING, STANDING, LAYING) wearing a smartphone (Samsung Galaxy S II) on the waist. Using its embedded accelerometer and gyroscope.