Documentation for Hand Motion Fusion based on Multi-Leap motion sensors MatLab toolbox

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Project GitHub page: https://github.com/Lucklyric/Fall2015MM804Project

Folder tree

--|External // Contains some external library

--|jsonlab-1.1 // Json paser in matlab

--|libsvm-3.20 // SVM matlab toolbox

--|MatLabScripts // Contains core functions and scripts for the main work of this project

--|MotionData // Dataset

--|JSON // Contains the motion file output by another GUI software for multi-leaps

--|MAT // Contains the .mat file that parsed by the JSON parser

--|TrainedModel // Trained models

API Reference

addStableFactor

**addStableFactor** According to the side length and framerate

Return the new frames with Sided State Fact array

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calculateED

**calculateED** Calculate the ED error with ground truth and array of frames

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edError

**edError** Euclidean Distance fro a given hand by comparing with the ground

truth

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globalSetting

Global Setting

Configure some key variables

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loadJsonData

Script for loading the JSON file and save to the .mat

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MainworkFlow

The Main workflow script

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returnFeatureVector

**returnFeatureVector** Return the feature vector for the given hand with

different type of strategy

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scaleNormalize

**scaleNormalize** normalize the fature if needed

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vector2stableFactor

**vector2stableFactor** This function return the single stable factor

inputArray is a variable list with length 3

frequecy is the framerate

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