

Data Collection for 3 days

Sensor data for
Accelerometer and GPS

Transportation
Labels

Karma

Modeling Data and Services

LocationProbe
AccelerometerSensor
AddDFT service output

AddDFT Service
Labeling Service
SVM Training Service
SVM Testing Service

Data Preparation

Process Location
Probe data

Load Accelerometer
Sensor data

Pytransform for
Acceleration
Magnitude

Extract timestamp
and magnitude
columns

Invoke addDFT
service

Join addDFT
output and
Location Probe
data

Filter rows that
cannot be joined

Add mode of
transportation
labels

Data Mining

Invoke SVM
Training service

Invoke SVM
Testing service

Train & Update
SVM model

SVM Training
Summary

SVM Prediction
output