Python Server Documentation

1. Files received from http post
   1. Three types of files:
      1. Config
      2. Data
      3. Events
   2. These files are then put in the directory /home/brad/inhomemonitoring/PythonServerCode/HttpServer/[file\_type]
   3. The http server then creates a directory under the [file\_type] based on the file header
   4. This path is [file\_type]/[patient\_id]/[data\_stream\_type]/[data\_type]
   5. Data stream type is either HM or MM and data type is what type of file it is. Aka ACC, GPS, RSSI, GT, etc
2. Files are uploaded to the database [TODO config and event uploaders]
   1. In multiple threads, each directory level is scanned for new files
   2. At the data type directory the files are opened and then uploaded to the server.
3. Room detection classifier is trained [TODO]
   1. The classifier gets the config data from the database and trains on it
   2. It is then serialized and uploaded to the database so the classifier doesn’t have to be trained every time the server restarts
4. Analysis of data[Partly TODO, some analysis routines are finished]
   1. The raw data is then processed to useful information (accelerometer data is processed into stepcount, rssi data is processed into room name, etc..)
   2. This analyzed data is then inserted back into the database
5. Event detection[TODO]
   1. The processed data is then further analyzed for changes over time and anomaly detection
   2. The detected events along with events thrown by the phone are then uploaded to salesforce