DataColleciton Application Usage and Design

The purpose of the DataColelction application is to allow a user top quickly collect datapoints for the Neuromorphic Vision Capstone. A datapoint will include information which will be required for training the machine learning algorithm later. The physical data which will be collected for each datapoint consists of an image of a subject, and orientation data about that subject. Other information, such as the time of the collection and session number may also be included, if it proves to be useful. Session numbers could be used for background selection and removal, and time may be useful for differentiating between different data points. The application will allow a user to select which subject they are looking at, select the correct camera and sensor data streams, and take a data point, which will automatically be saved in an organized file structure. Data points will be organized by subject with information baked into the filename.

The file structure will be a simple tree structure, with an outer folder containing a .json file containing which subjects exist. The name of each subject will be used as folder names, which contain data points of each respective subject. Within this folder, there will be a .json file which contains each data point filename. This .json file may also deconstruct the information stored within the filename of each file for faster access time during analysis.

To be continued…