Intended Use:

The algorithm is intended to be used as an assistive tool to help radiologists in calculating the volume of Hippocampus, which will help clinicians in monitoring the progression of Alzheimer's disease.

Training Data Collection:

We are using the "Hippocampus" dataset from the Medical Decathlon competition. This dataset is stored as a collection of NIFTI files, with one file per volume, and one file per corresponding segmentation mask. The original images here are T2 MRI scans of the full brain. The dataset is cropped volumes to only contain the region around the hippocampus to the aim of reducing the size of dataset.

Training Data Labelling:

According to Medical Decathlon website, all data has been labelled and verified by an expert human rater, and with the best effort to mimic the accuracy required for clinical use, which consider to be silver standard.

Training performance:

Training performance is measured by some performance metrics, which are, Dice Similarity Coefficient, Jaccard Index, Sensitivity, and Specificity.

Real World Performance:

This algorithm has been developed and trained on images that isolate the Hippocampus from the HippoCrop tool, utilizing full MR brain scans, the algorithm is designed to interface with PACS and can retrieve DICOM images that have been filtered through the Hippocrop tool for use**.** Therefore, the algorithm will not perform well on MRI images of any body part scans other than the brain. Also, the algorithm provides a DICOM report, which can be viewed by the clinical viewing system.