DATA SET PREPARATION

Project Name: AGENT BASED INTERACTIVE SIGN LANGUAGE DATA ACQUISITION SOFTWARE

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MediaPipe is a framework for constructing machine learning pipelines to process time-series data such as video and audio. We input a stream of images, which outputs images with hand landmarks rendered on them. Our first priority was to standardize the size of the image data we had to facilitate easier coordination. This ensures that the images are consistently sized, making processing and analysis more manageable. This step is crucial in the data preparation process as having data of the same size can help the model learn and generalize more effectively. We prepare the data for machine learning using a pre-prepared 26-letter ASL dataset.

The input consists of the coordinates of 21 points positioned on a hand, which we can utilize through MediaPipe, while the output corresponds to letters.

For example this is the letter 'A':