

**Computer Vision Project Group - 7**

**Week-2: Progress Report**

**Project Title:**

**American Sign Language Alphabet Detection**

**Submitted to faculty: Prof. Mehul Raval**

**Group Members:**

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**Tasks performed in this week:**

1. Data Finalizing: We found an appropriate dataset for our project which we obtained from a reputed site of Kaggle.
2. Data Uploading: We tried to upload the finalized datasets to different sites, but we were faced with a few problems, where we weren't able to mount our data in google colab due to large data size.
3. Data Cleaning: We cleaned our data by removing incorrect, duplicate, or otherwise erroneous data from a dataset.
4. Data processing: Preprocessing the dataset to improve its quality and prepare it for training. This included resizing the images, normalizing it, and removing the background.

Our tentative approach is:

1. Preprocess the data (data cleaning): Preprocess the dataset to improve its quality and prepare it for training. This could include resizing the images, normalizing the colors, and removing the background.
2. Train a deep learning model: Develop a deep learning model that can recognize hand gestures in real-time.We are using the CNN architecture. You can consider using CNNs or RNNs for this task. You may also use transfer learning to improve the model's accuracy and speed up training.
3. Deploy the model: Deploy it in a real-time setting and test its performance in different lighting conditions and backgrounds. You may need to make adjustments to the model or the hardware/software setup to improve its performance.