

Project Design Phase-I

Solution Architecture

Date	1 November 2023
Team ID	Team-591769
Project Name	ASL- Alphabet Image Recognition
Maximum Marks	4 Marks

Solution Architecture:

Our ASL-Alphabet Image Recognition system will leverage machine learning and computer vision techniques to recognize the 26 letters of the English alphabet in American Sign Language, as well as three additional classes for the signs representing "space," "delete," and "nothing" from hand signs, allowing for seamless communication between the two communities.

Steps involved:

1. Data Collection and Preprocessing.
2. Model Selection.
3. Training and Validation.
4. Real-time Video Stream Integration.
5. User Interface.
6. Gesture Feedback.
7. Deployment and Scaling.

Solution Architecture Diagram:

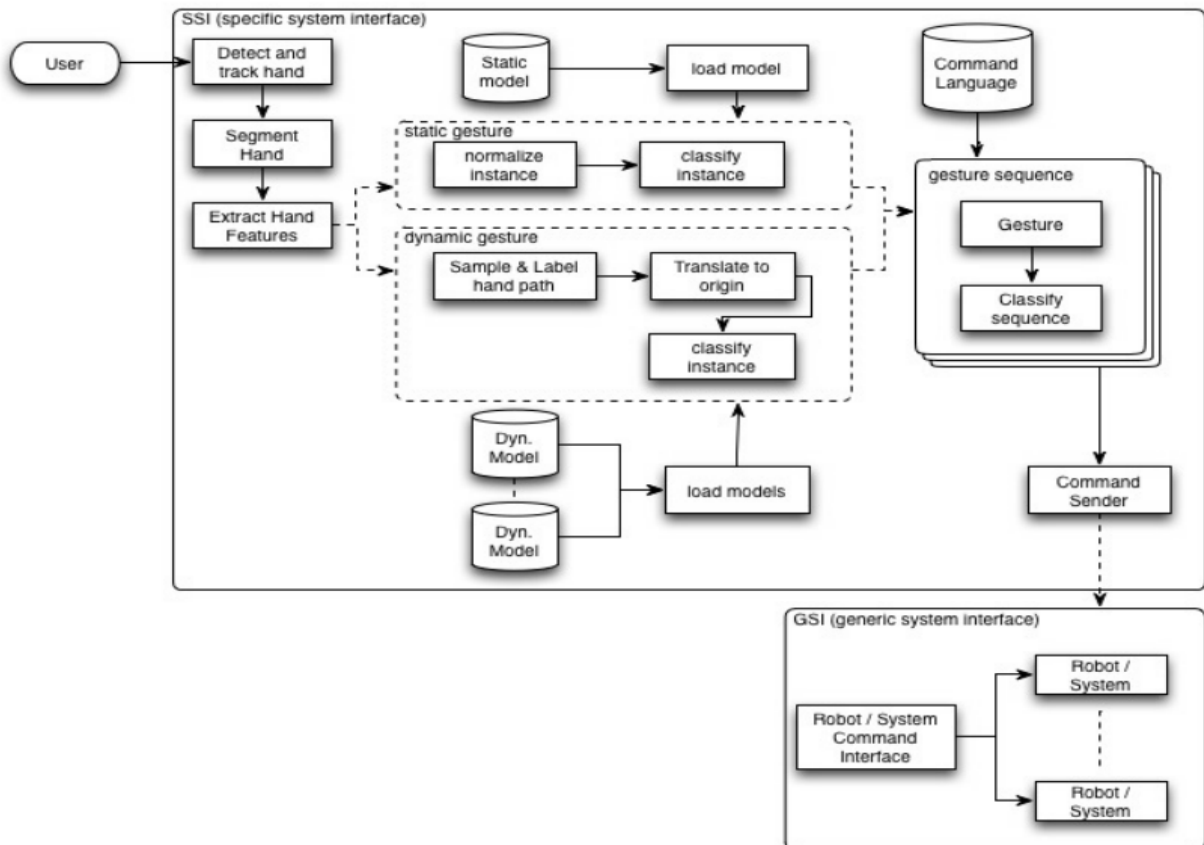


Figure 1: Architecture and data flow of the ASL- Alphabet Image Recognition