

Project Design Phase-I
Solution Architecture

Date	03 November 2023
Team ID	Team-591587
Project Name	ASL- Alphabet Image Recognition
Maximum Marks	4 Marks

Solution Architecture:

Designing a solution architecture for ASL (American Sign Language) alphabet image recognition using deep learning involves several key components. IT involves designing a system to recognize and interpret the hand gestures representing individual letters in ASL.

Steps involved:

1. Data Collection and Preprocessing:

- **Dataset Acquisition**
- **Data Preprocessing**

2. Model Selection:

- **Convolutional Neural Network (CNN)**

3. Model Training:

- **Training Setup**
- **Transfer Learning**

4. Deployment:

- **Model Deployment**
- **User Interface (UI)**

5. Continuous Improvement

- **Monitoring and Feedback**

Considerations:

- Data Privacy and Security
- Scalability
- Model Interpretability

Technology Stack

- Programming Languages
- Libraries and Frameworks
- Deployment

Example - Solution Architecture Diagram:

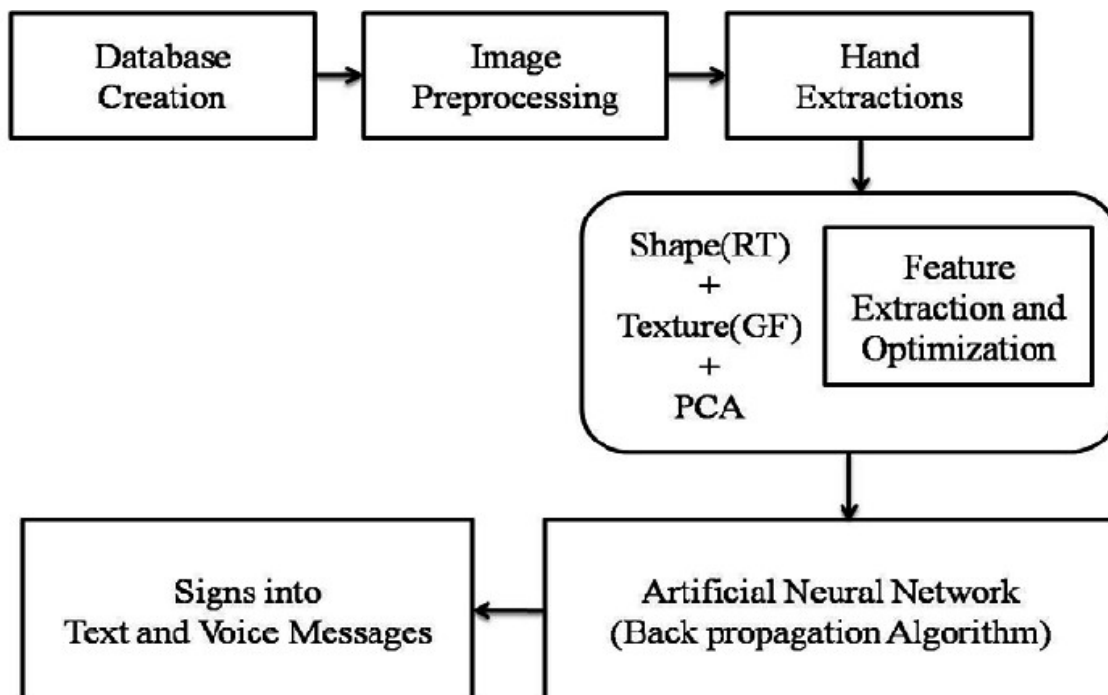


Figure 1: Architecture and data flow of the ASL- Alphabet Image Recognition