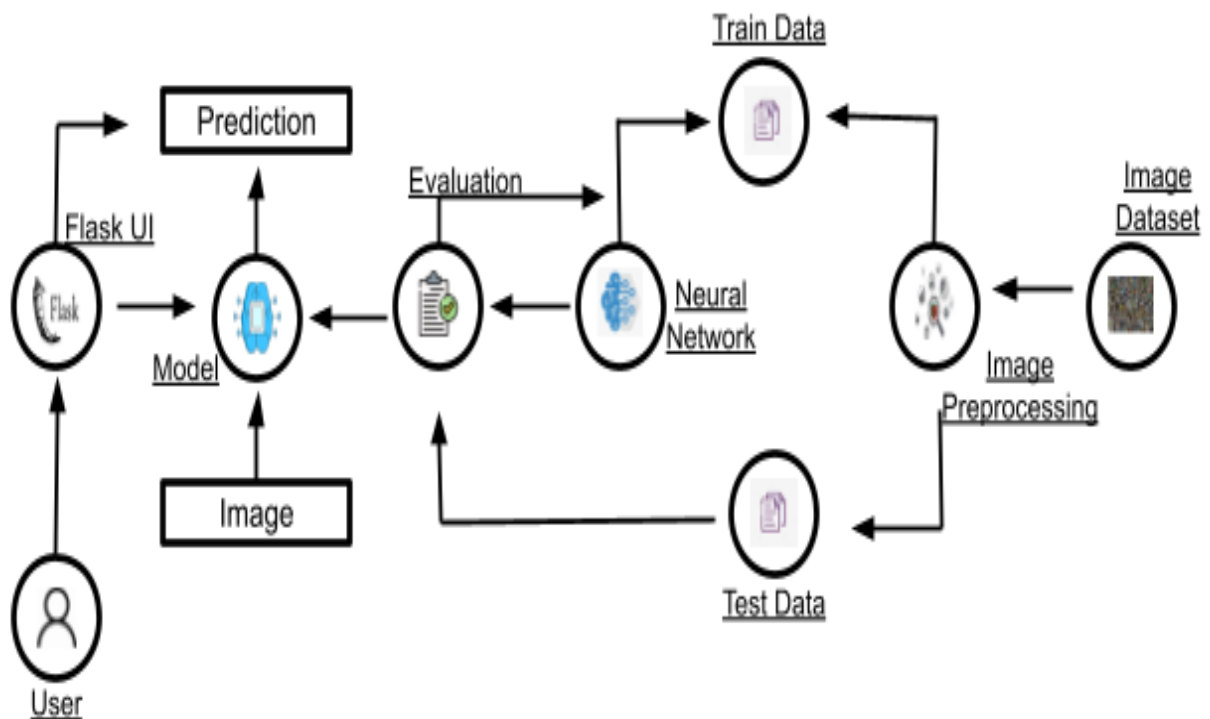


Technology Stack

(Architecture & Stack)

Date	03 November 2022
TeamID	PNT2022TMID01045
ProjectName	Real-Time Communication System Powered by AI for Specially Abled
MaximumMarks	4 Marks

Technical Architecture :



Components & Technologies :

Component	Description	Technology
User	Communication barriers of deaf or hearing- impaired people with other communities, contributing significantly to their social inclusion	AI Technology
Flask	Flash's user interface components let you interact with the users that use your site and gather information.	IBM Cloud
Model	Deep Learning is applied to classify our gesture image dataset.	Machine Learning
Image Prediction	Gesture can be completely observable and viewing a gesture from another perspective makes the prediction	OpenCV, CNN
Evaluation	Aims to estimate the generalization accuracy of a model on future (unseen/out-of-sample) data	Machine Learning
Neural Network	The same convolutional neural network architecture was used for both, the top view and the bottom view models, the only difference is the number of output units	CNN
Dataset	First prototype of this system used a dataset from the Panamanian Manual Alphabet.	AI Technology

Application Characteristics :

Characteristics	Description	Technology
Open Source Framework	Robots and other tools provide home-based care and other assistance, allowing people with disabilities to live independently	Artificial Intelligence
Security Implementations	Set the inclusion and exclusion criteria , Report the results in the survey	Artificial Intelligence
Scalable Architecture	The improvement in the specially abled persons interaction with the environments	Artificial Intelligence
Availability	Technology solutions that mimic humans and use logic from playing chess to solving equations and Machine learning is one of the technologies	Artificial Intelligence
Performance	Enables people with disabilities to step into a world where their difficulties are understood and taken into account	Artificial Intelligence