

PROJECT REQUIREMENTS DOCUMENT

Project Name

VisuSpeak

Functional Requirements

1. **Sign Language to Text:** VisuSpeak will convert American Sign Language (ASL) gestures (from visual signing captured via webcam) into text to facilitate communication with English speakers.
2. **Accessibility and Inclusive Chats:** ASL users of the application can alter chat options to suit their special needs and to create a more tailored communication experience; such options include sign identification speed as well as differing message input types (text, hand gestures, and audio).
3. **Copy Functionality for Chats:** Admin users will have the ability to copy messages from a conversation for use within corporate ticketing systems.
4. **Transcription History:** The application will maintain a history of conversations and transcripts, ensuring users can access past interactions.
5. **Account Settings:** Admin users will have the ability to change their passwords as well as their preference of language (English or French).
6. **Resources:** Users will have access to an ASL dictionary and other relevant external ASL resources.
7. **Support:** Users can access a support page to learn how to use various features of the application.

Technical/Performance Requirements

1. **Minimum Performance Requirements:** Users should have access to a Desktop/Laptop/Tablet with browser support and web camera.
2. **Accessible and Inclusive Design:** The user interface in the application should be accessible and inclusive to accommodate users with hearing loss or individuals who are non-vocal.
3. **Secure User Authentication:** The application should keep user credentials and related data secured.
4. **Efficient:** The system should be able to perform translation between ASL and English between 5-15 seconds depending on the size of the input.
5. **Accuracy:** System should be able to accurately recognize video input from the user and the

Artificial Intelligence (AI) model should provide correct predicted translations.