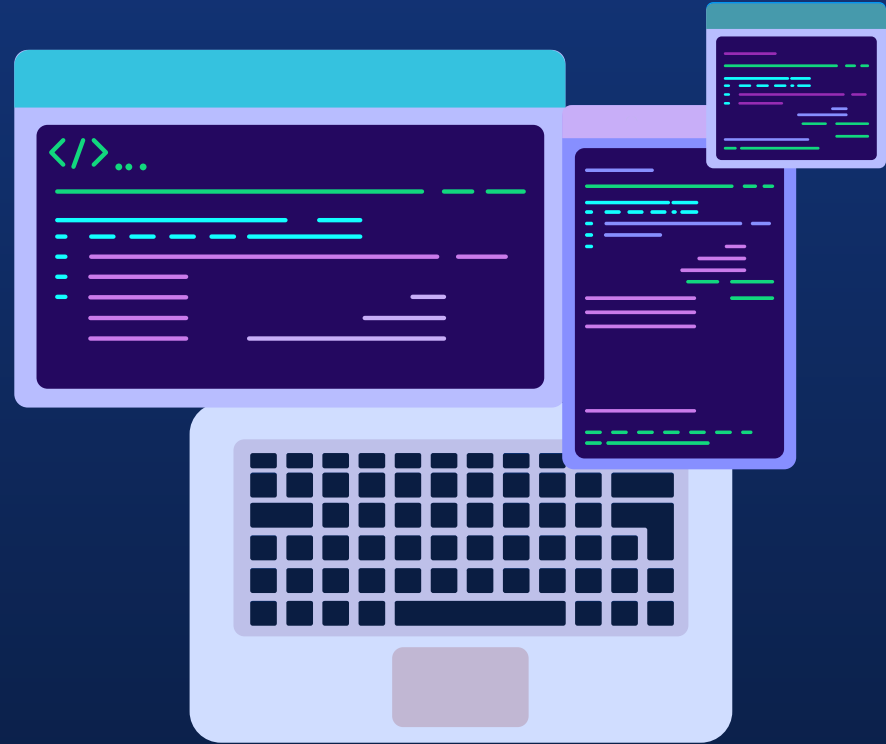
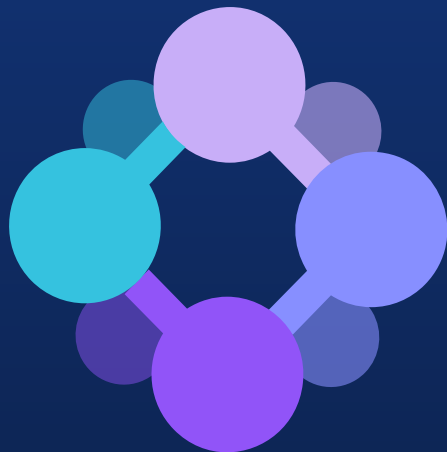


VisuSpeak Capstone Project Pitch

Jasmeet Singh, Archisha
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Why (Plan -DO)

Our primary motivation is to create a solution that will address accessibility needs and increase inclusivity for individuals with vocal and hearing impairments. We want to bridge the communication gap that currently exists between ASL users and English Speakers.

It will help individuals with accessibility needs to gain access to essential services in public settings such as Institutions and Offices. This solution will strive to educationally benefit all who use it, improve social interaction within both communities and promote equality among all groups involved.



How (Study-Act)

- Research the needs: What functionalities and features should be included in our solution that would be desirable to our users.
- Professional Guidance: Reaching out to industry professionals to learn the proper community of practice among the users with accessibility needs more specifically ASL users.
- Explore Tech Stack: What will work for us in terms of DB, hosting platform etc.
- Datasets: Do some research on what datasets currently exist and choose which set(s) will best suit our needs.
- Neural Network Architecture: Explore various architectures such as CNN and RNN compatibility for real-time video capture and prediction, NLP integration for text and speech comprehension and translation.
- User Acceptance Testing: Perform tests of our application with the beta users community.



What (Create/Iterate)

Our project's initial objective is to develop an ASL to English bidirectional translation application.

Through the integration of Neural Networks and NLP, we aim to create a user-friendly and reliable platform that facilitates real-time translation between ASL and English wherein users will be able to input ASL gestures into a web camera and translate it to English text and speech and vice versa.

As the complexity of our project increases we aim to add additional features to our solution as well such as

- ASL Accuracy Testing where beginner users will be able to test the accuracy of their ASL gestures
- Transcription History where a history of conversations will be maintained
- Integrated ASL Dictionary to act as an ASL reference guide for users as a learning resource.



Thank You!
Any Questions?