PROJECT CHARTER

Project Name	VisuSpeak
Date Produced	October 18, 2023
Project Goals	Our team aims to create an innovative ASL-English bidirectional translation application for our capstone project. Team VisuSpeak is developing an app to translate ASL to English using Machine Learning. Many people who are non-verbal or individuals with hearing loss use ASL as their language of communication. But there's often a significant gap in communication between ASL users and English speakers unfamiliar with ASL. People with special needs may feel left out while seeking help in places like schools, stores, jobs, healthcare, and social interactions as it can be hard to get answers fast. In these situations, getting customer service can be frustrating if no interpreter or writing tools are available. Team VisuSpeak's proposed solution will help ASL users communicate with English speakers seamlessly, thereby bridging the language barrier. The app will translate ASL to English in real-time, making communication easier for everyone.

Project Objectives	Our project objectives include:
	      Research on AI models and datasets
	      Server Setup and Management
	      Development of Front-end
	      Database Setup and Management

Project Budget	$500
Project Sponsor	Dr. Tim Maciag – ENSE 400/477 Capstone Facilitator Dr. Kin-Choong Yow – Mentor

Additional Key Project Stakeholders

- Archisha Bhattacharya – AI Developer, Full-Stack Developer, Technical Architect
- Brooklyn Coulson – Front-end Developer, Documentation Manager
- Jasmeet Singh – AI Developer, Full-Stack Developer, UI/UX Developer

Overall Project Milestones	**Dates**
Note: These milestones cover the first phase of the capstone project from September 2023 to December 2023 and are tentative and subject to change based on project progression and evolving needs.	

Project Planning and Initialization	October 2, 2023
Project Prototype Development	October 12, 2023
Initialization and Configuring Database	October 18, 2023
Start Front-end Development	October 28, 2023
Research AI Models and Datasets	November 7, 2023
Note: These milestones cover the second phase of the capstone project from January 2024 to April 2024 and are tentative and subject to change based on project progression and evolving needs.	
AI Model Development and Testing	January 17, 2024
Phase 1 User Testing	January 23, 2024
Phase 2 User Testing	February 22, 2024
Expand Dataset for AI Model	February 24, 2024
VisuSpeak Go-Live on Production Server	March 10, 2024
Phase 3 User Testing	March 26, 2024

Overall Project Risks

Time Constraints: We will be operating within a limited time frame, which may pose challenges in meeting project milestones and deadlines.

Access to Sufficient ASL Data: Obtaining a substantial dataset for training our AI model in American Sign Language (ASL) translation may take time and effort. We must determine whether an adequate dataset exists or if we need to compile it ourselves.

Budgetary Constraints: As financially constrained university students, cost considerations may limit our ability to access necessary resources and technologies for the project.

Interpreters: Engaging interpreters proficient in ASL may present logistical and financial challenges.

Translator Requirements: To ensure translation accuracy, the need for translators to cross-reference and validate our AI output introduces potential resource and coordination complexities.

Learning Curve: Given our team's lack of expertise in ASL, French, or Indigenous languages,

there will be a learning curve involved, which may require additional education and training on the team's part.