

Development Plan

Software Engineering

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Table 1: Revision History

Date	Developer(s)	Change
September 22, 2023	Stanley Chan	Proposed proof of concept demonstration plan
Date2	Name(s)	Description of changes
...

[\[Put your introductory blurb here. —SS\]](#)

1 Team Meeting Plan

2 Team Communication Plan

3 Team Member Roles

4 Workflow Plan

- How will you be using git, including branches, pull request, etc.?
- How will you be managing issues, including template issues, issue classification, etc.?

5 Proof of Concept Demonstration Plan

One significant risk we have identified pertains to the accuracy and reliability of the computer vision aspect of this application. As this is the primary functionality for this application, it is necessary that our system should demonstrate the capability to detect and recognize complex hand signs and motions. One way we could validate our ability to mitigate this risk would be to prove that we can build a system that can accurately recognize all the letters of the American Sign Language alphabet.

Another risk relates to ensuring that the system can provide realtime feedback based on the user's hand sign inputs with an acceptable time delay. As this will be a web application, we suspect that much of the computer vision computation will be on the server/backend side. This may introduce uncertainty in creating a realtime feedback system, particularly since computer vision is more computationally intensive compared to text recognition based applications like Duolingo. For our proof of concept, we will deploy our computer vision model onto a server, and test the delay in the server's response when it receives a request to recognize a hand sign from another device.

6 Technology

- Specific programming language
- Specific linter tool (if appropriate)
- Specific unit testing framework
- Investigation of code coverage measuring tools
- Specific plans for Continuous Integration (CI), or an explanation that CI is not being done
- Specific performance measuring tools (like Valgrind), if appropriate
- Libraries you will likely be using?
- Tools you will likely be using?

7 Coding Standard

8 Project Scheduling

[How will the project be scheduled? —SS]