



Language Learning Platform: An application for the 2022 STARTALK Chinese Program at TCU

Ryan Luly, Nhan Ly, Quang Truong, Dominick Cartagena, James Fanning, Jason Eisdorfer, Bingyang Wei, Junyu Zhang, Guangyan Chen
Texas Christian University, Department of Computer Science
Fort Worth, Texas 76129



INTRODUCTION

Our project is a language-specific learning platform that will be implemented as part of the instruction in the "Pathways to Success" STARTALK program at TCU Summer 2022, funded by the National Security Agency. The platform aims to assist students' learning in achieving the program's learning outcome - moving forward in Chinese language proficiency and the intercultural competency required to shore up that proficiency. The platform enhances learners' text reading process by incorporating text audio, romanization, vocabulary, and translation into one interface. The platform allows learners to practice and receive evaluations for oral communication with audio and video submission, thus creating a virtual space that enhances learners-to-learners and teachers-to-learners communication.



ROMANIZATION

Pinyin is the standard system of Romanized spelling for transliterating Chinese. By toggling the Pinyin function, the romanized spelling of each Chinese word would show above the original text.



TRANSLATION

Our platform incorporates Google Translate API into the textbook so that students can get instant access to translation without having to direct to Google Translate webpage.



TEXT-TO-SPEECH

Our platform allows students to listen to audio version of the textbook via Goggle Text-to-Speech API. Students can listen to audio recordings of words and sentences by highlighting the text and pressing the Text-to-Speech button.

VOCAB/CULTURAL WORDS

Teachers can add notes for words that need special attention by students, as well as change the highlight color to illustrate different kinds of notes.



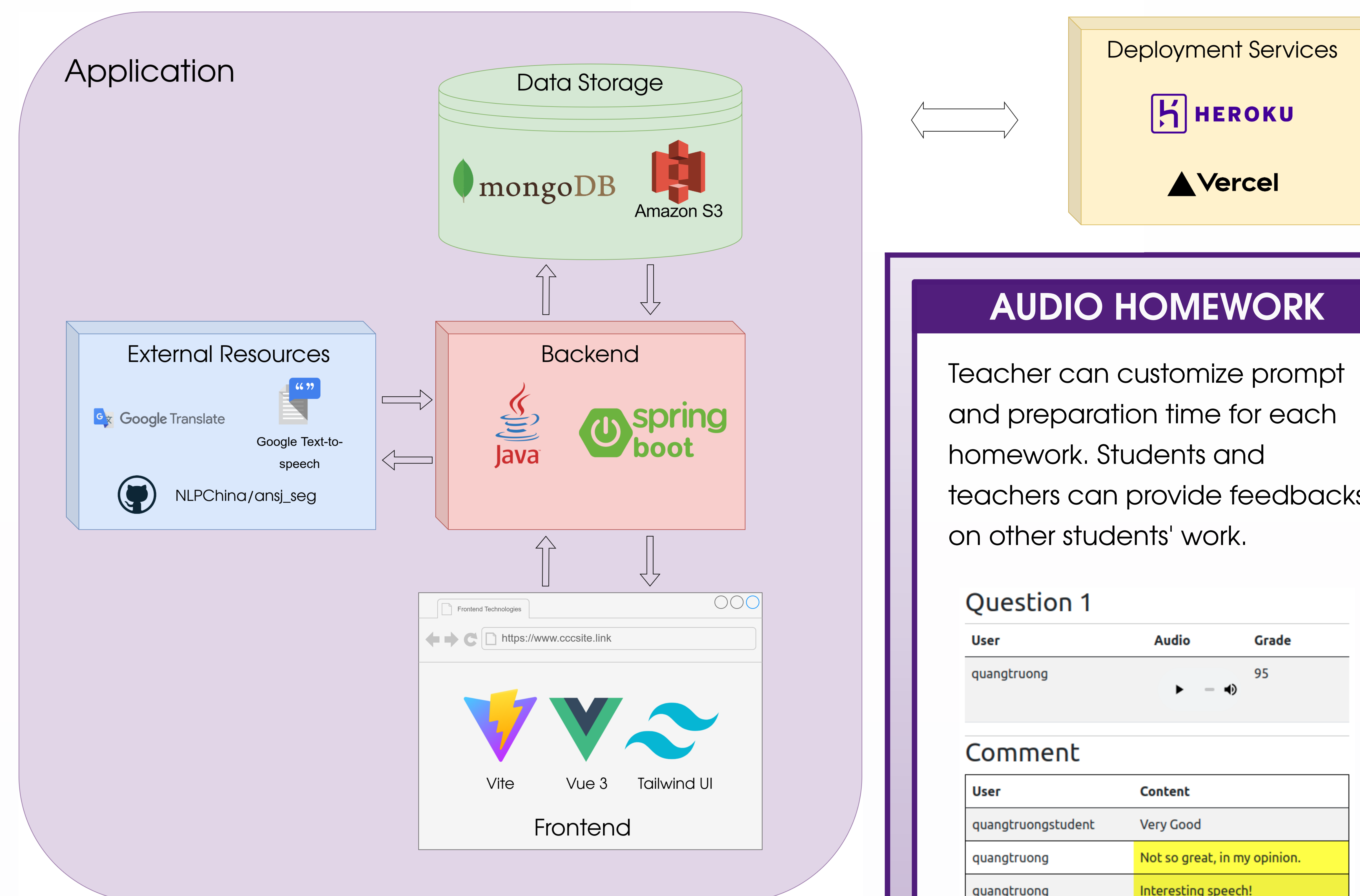
SIGNIFICANCE

Most of learning management systems (LMS) are designed for general purposes. For example, when learning a new language, learners frequently encounter new characters, which requires them to look up for pronunciation or/and meaning. Without an embedded function in pre-existing LMS, the learners have to switch consistently between text passages and external dictionaries. Most of the existing LMS are also not user-friendly for oral communication instructions, as most features are text-focused.

Our goal is to develop a centralized language learning platform:

- Focuses on efficiency in learning by allowing instant access to romanization, audio, and definition of characters in textbooks.
- Enables interactive classroom experience where students and teachers can communicate by different means including video, audio, and text.

ARCHITECTURE



AUDIO HOMEWORK

Teacher can customize prompt and preparation time for each homework. Students and teachers can provide feedbacks on other students' work.

Question 1

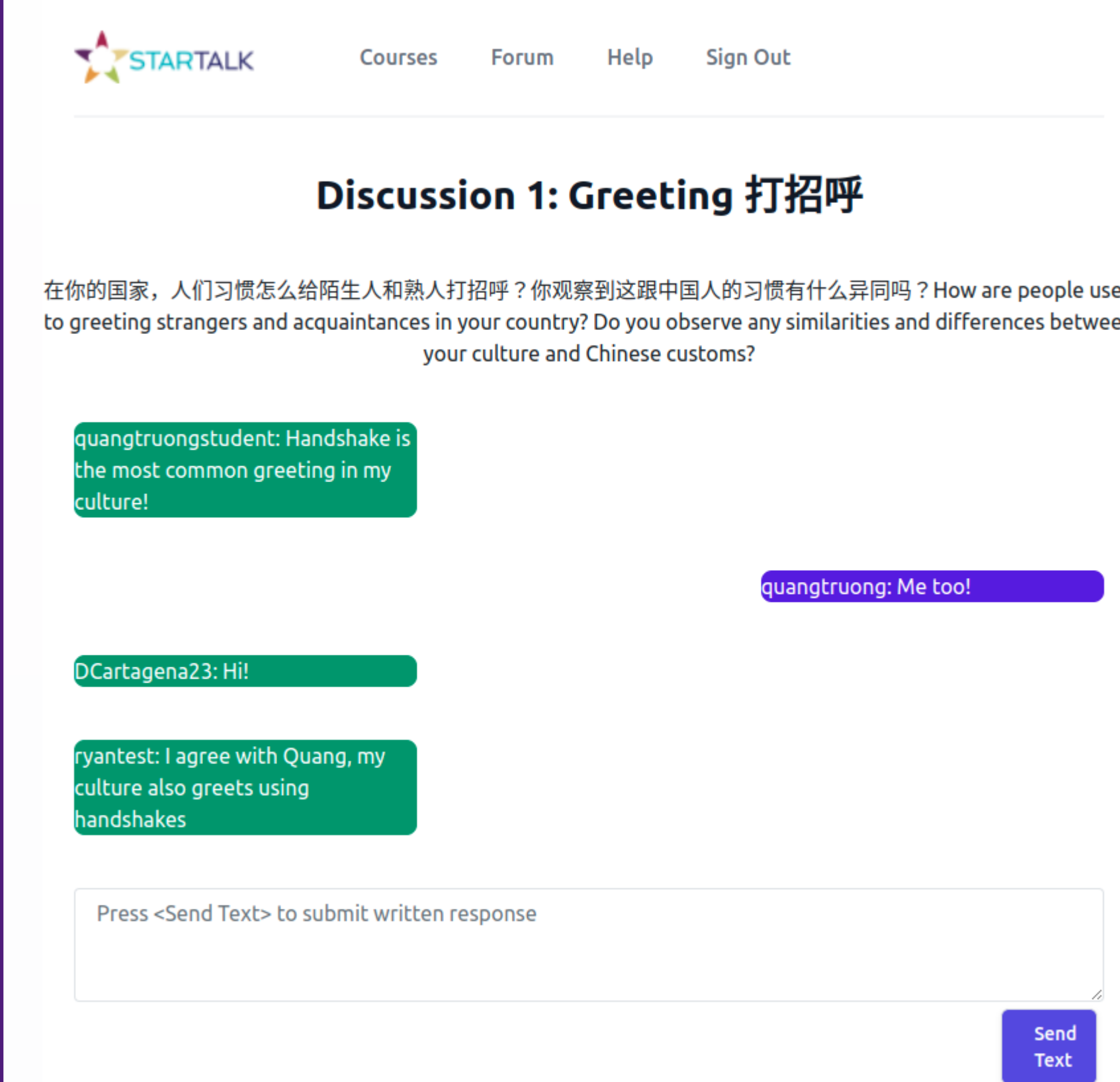
User	Audio	Grade
quangtruong		95

Comment

User	Content
quangtruongstudent	Very Good
quangtruong	Not so great, in my opinion.
quangtruong	Interesting speech!

FORUM

Students can communicate with each in class through the feature Forum. Forum allows students to chat via different means of communications, and the GUI is designed to be similar to common messaging apps.



CONCLUSION

Our language learning platform allows students to join a dynamic classroom environment by providing real-time feedback under different means of communication. The platform also simplifies the language learning process, by incorporating audio, romanization, and translation of Chinese texts into the textbook.

ACKNOWLEDGEMENT

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