NANYANG TECHNOLOGICAL UNIVERSITY
SINGAPORE

School of Computer Science and Engineering
College of Engineering

An Augmented Reality System for Guitar Chord Learning

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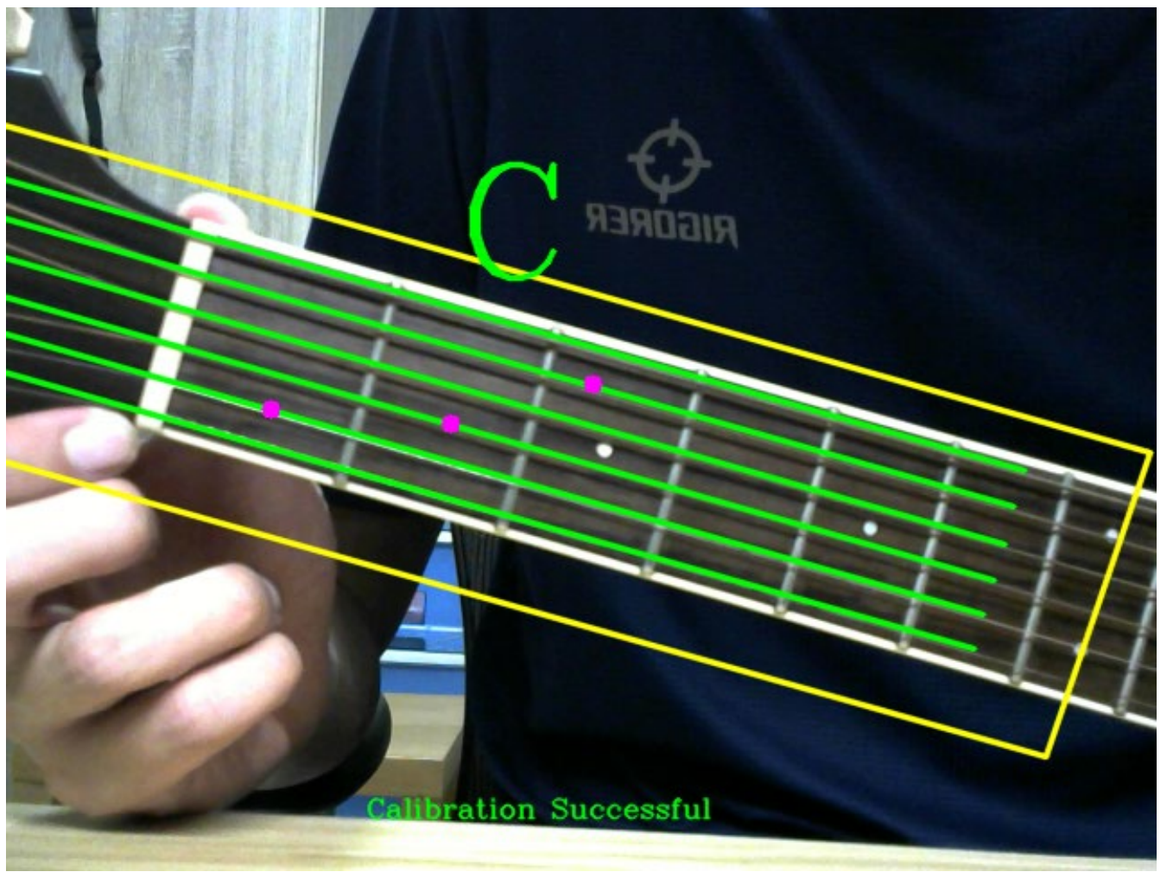
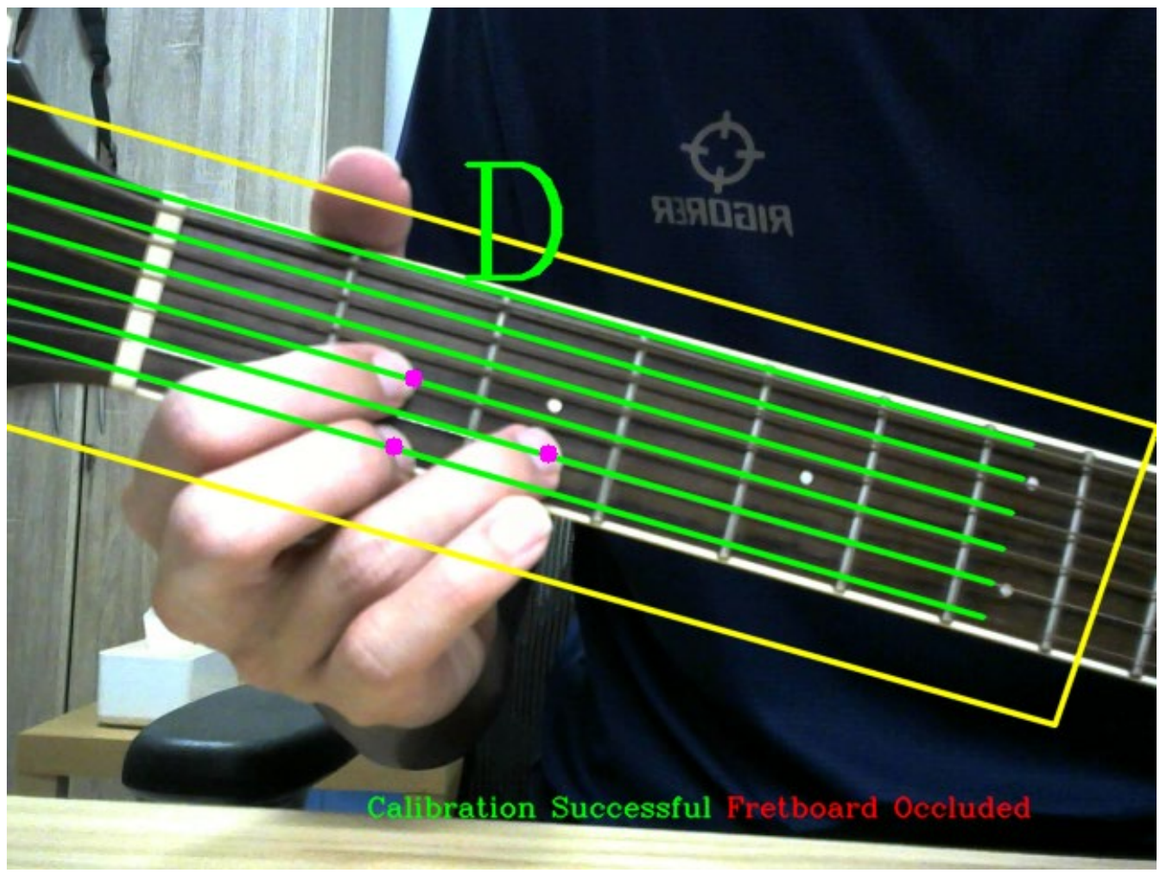


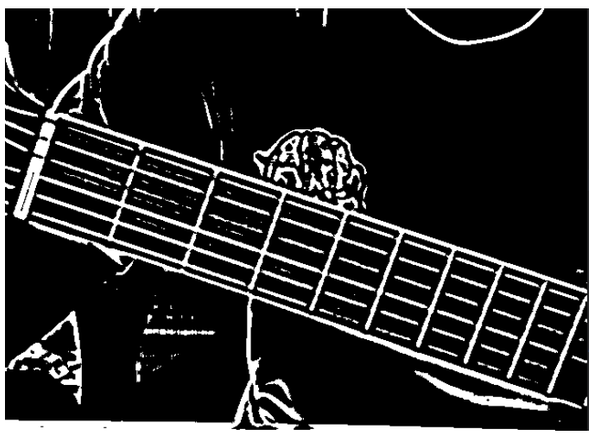


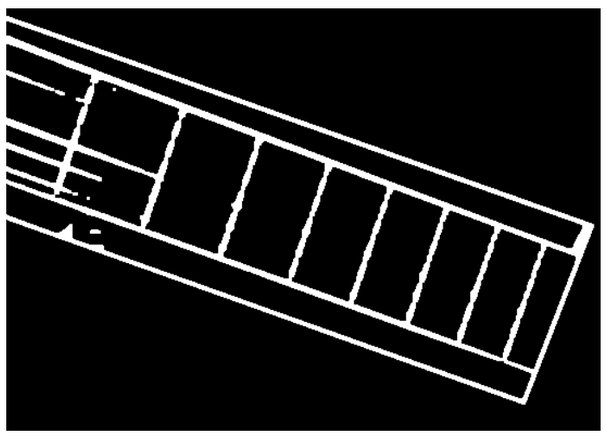
Project Objectives:

This project aims to develop GuitAR, a prototype Augmented Reality (AR) application to help beginners in learning the guitar. In particular, the challenge of learning new chords was targeted. A user study was carried out regarding the improvements in the players' proficiency that the application brought over conventional guitar learning tools such as chord diagrams and tutorial videos. Computer vision techniques were used to implement the AR functionalities. Insights from this project will be useful for the future development of AR-based learning platforms for guitar, which can hopefully reduce the learning curve for beginners and encourage more people to learn the instrument.

Methodology:

Computer vision techniques were used to extract information regarding the strings and frets of the guitar.





User Study Results:

Improvements in users' chord playing speed observed