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Educational website for learning sign language

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Abstract

According to the World Health Organization (WHO), 466 million people across the world have disabling hearing loss (over 10% of the world's population), of whom 34 million are children. There are only about 250 certified sign language interpreters in Egypt   for a deaf population of around 7.5 million.

Introduction

The spread of technologies and technology has made life much simpler for people. Many people are thrilled and overwhelmed by the positive results of the quick expansion in technology. It has made it possible for the weak to grow strong, the ill to recover, and the handicapped to live like the able-bodied. It has always been challenging for those with speech or hearing difficulties to communicate. and mix, but that barrier has now been removed thanks to technology. Now that they can converse with no trouble, they find themselves speaking openly in front of others.

Problem definition

Deaf and dumb people have a lot of difficulties. Imagine that you live in a world where no one knows your language and you have to navigate everyday life using interpreters and special services to help you communicate with others. Imagine a world where everyone is deaf and you are the only one who hears it and you are excluded because of your "hearing" disability And you are classified as "another type." This is the reality of the deaf communi

There are approximately 1.4 million deaf and hard of hearing people living in the USA within the state of Michigan and more than 38 million deaf and hard of hearing people all over the other America, where the deaf community is a vibrant but unfortunately incredibly marginalized community from Before the mainstream audio community

Deaf people endure daily discrimination and oppression. Deaf people have faced generations of systematic discrimination including forced sterilization in the twentieth century. The relationship between the hearing community and the deaf community is often strained due to the continuing lack of understanding of the deaf community. Therefore, we wanted to make a site to teach sign language easily from home to help spread sign language in the world and the ordinary person can learn sign language, not just the deaf person, so that we are able to understand each other easily in the world.

Methodology

Sign Language Translator enables the hearing-impaired user to communicate efficiently in sign language, and the application will translate the same into text or speech.

The user has to train the model by recording its own sign language gestures. Internally, it uses MobileNet and the KNN classifier to classify the gestures. The user also has the privilege to save the model, upload a pre-trained model, and record gestures while speaking to other people.

It also contains a tutorial page containing 100+ most commonly used phrases, alphabets, etc. and a practice page to practice alphabet signs against a deep learning model.

Results

Uses MobileNet and KNN classifier to classify the gestures. The user also has the privilege to save the model, upload a pre-trained model, and record gestures while speaking to other people.

It also consists tutorial's page containing 100+ most commonly used phrases , alphabets , etc and a practice page to practice alphabets signs against a deep learning model.
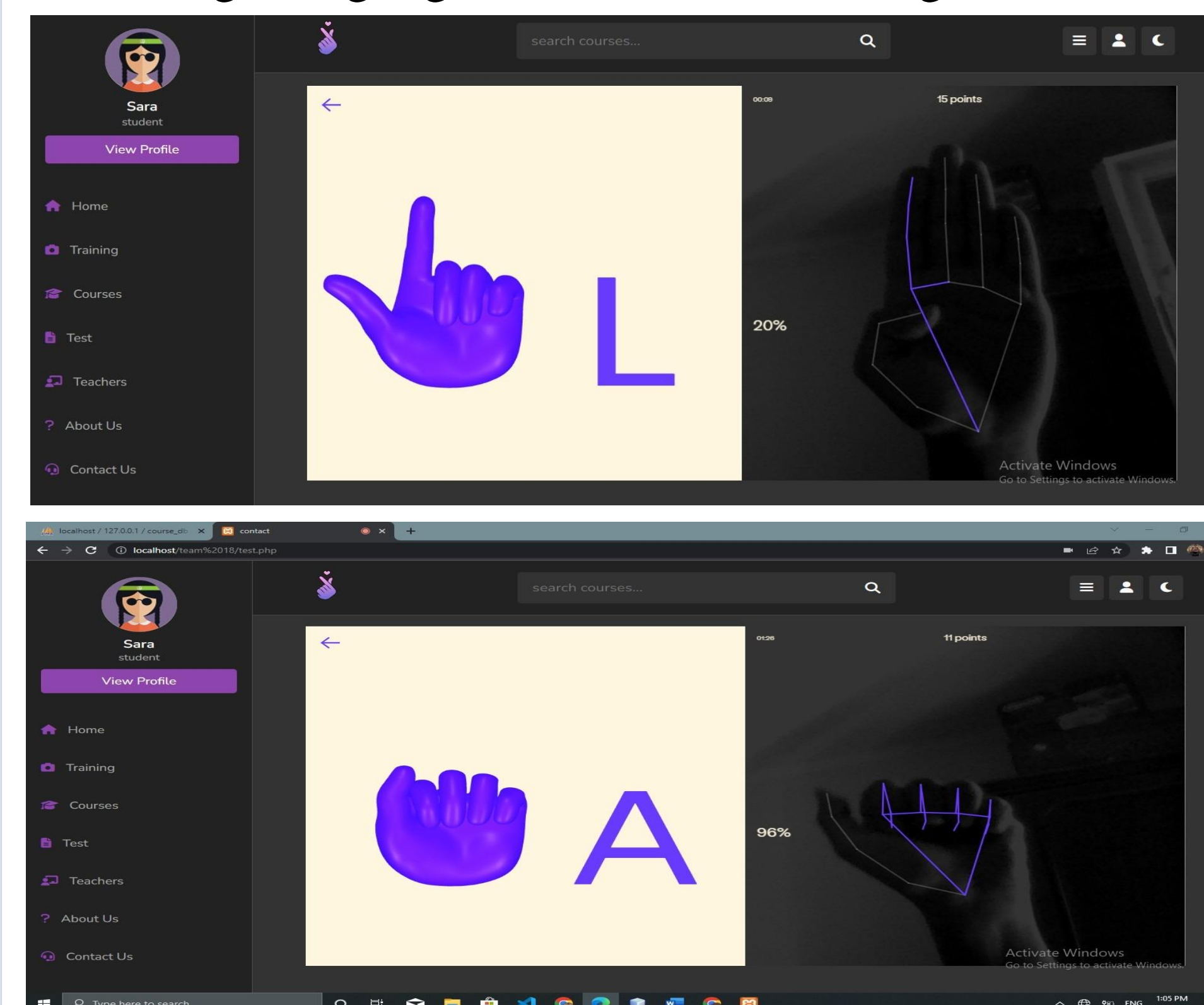
OUTCOME

Log in

Home Page

Create Account

Learn sign language with artificial intelligence

References

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