STARSTREAM

LEARNING APP

TEAM NAME - STARSTREAM

PAYALDURAGA PAILA(TEAM LEADER)
MEGHANA KANKANTEE
HARSHA AGRAWAL
AYUSH MISHRA
SARTHAK DAGA

PROBLEM STATEMENT

LEARNING APP

How can a digital learning application empower deaf and mute students by integrating sign language translation and interactive learning modules?

SOLUTION

We have created an interactive learning application designed to empower deaf and mute children by providing an engaging and inclusive learning environment.

Attractive UI for Kids

- Designed to make learning enjoyable and prevent feelings of burden.

Sign Language Integration:

- Utilizes OpenCV to recognize and teach ASL (American Sign Language) for numbers and alphabets.

Interactive Learning Modules:

- Engaging games and practice exercises to encourage play-based learning.

Classes & Reading Materials:

- Provides learning resources for both children and parents to teach and learn effectively.

Social Impact:

- Promoting Inclusion: Ensuring that deaf and mute children receive education at the right age, helping them build confidence and secure their place in society.
- Challenging Neglect: Highlighting that these children should not be ignored but empowered with knowledge and opportunities.

Our Vision:

To create a platform where deaf and mute kids can learn, grow, and thrive, fostering a sense of inclusion and confidence in their abilities.

KEY FEATURES

- Engaging UI/UX: Built with React and Vite, integrated with Three.js for interactive 3D visuals to enhance user engagement.

- ASL Recognition: Utilized OpenCV with Python for real-time gesture recognition of ASL alphabets and numbers

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- Gamified Learning & Practice: Developed interactive games and practice modules

- Learning Resources: CMS powered by Express.js to provide structured classes and reading materials for kids and parents.

- Backend and Database: Express.js for API development and PostgreSQL for secure data storage and management.

TECHNOLOGY USED

Frontend (UI/UX)

- React + Vite – Optimized for fast and responsive user interfaces.
- JavaScript – Enables dynamic functionality and client-side logic.
- Three.js – Renders 3D graphics and interactive visual elements.

Sign Language Recognition

- Python + OpenCV – Real-time recognition of ASL alphabets and numbers.
- TensorFlow– Potential for enhanced accuracy using machine learning models.

Gamified Learning Modules

- EXPRESS – Creates interactive games to encourage play-based learning.

Backend & API Development

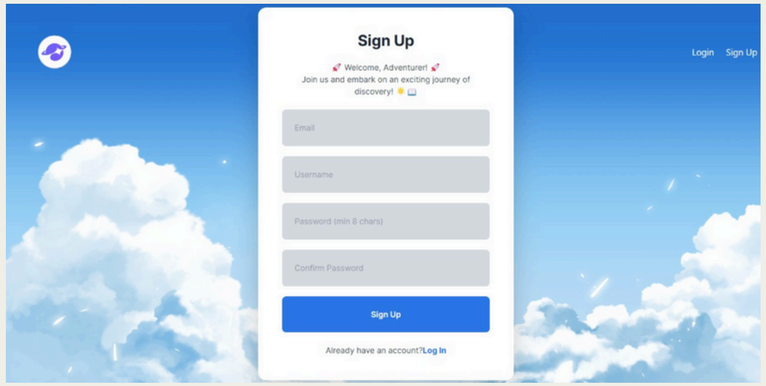
- Express.js (Node.js) – Manages content, user authentication, and API communication.
- PostgreSQL – Stores user profiles, learning progress, and class data.

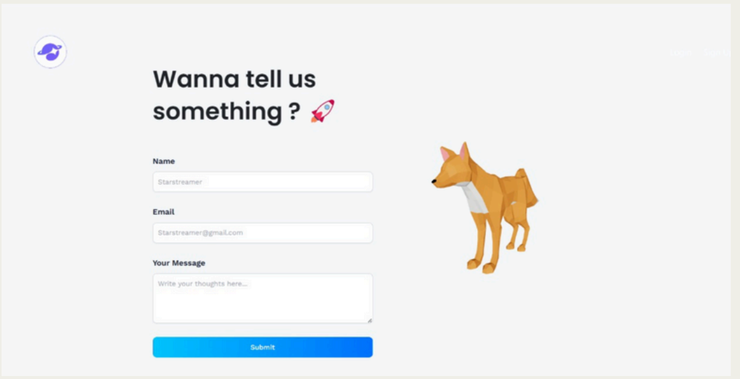
Hosting & Deployment

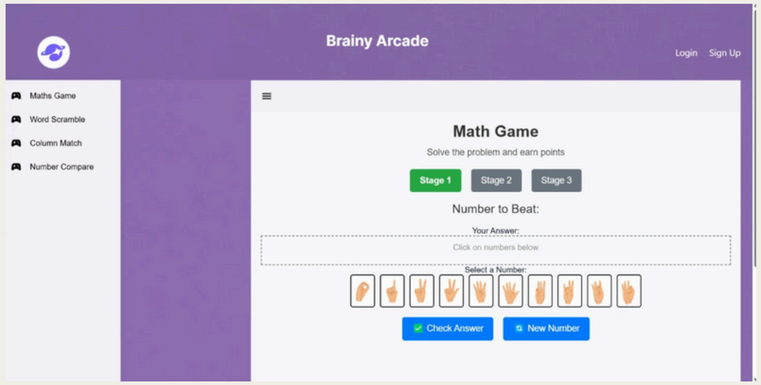
- Vite Build System – Ensures faster builds and hot module replacement.

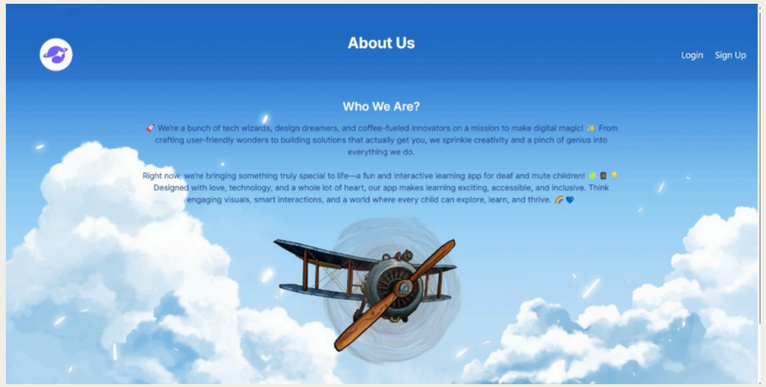
DEMO

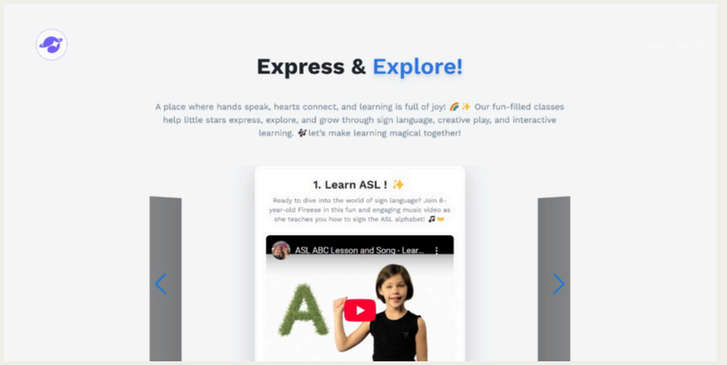

Welcome to Starstream
Let's start learning!
Login
Sign Up
Profile
Aboutus
Home
Practice
Courses
Games
Classes


Sign Up
Welcome, Adventurer!
Join us and embark on an exciting journey of discovery!
Email
Username
Password (min 8 chars)
Confirm Password
Sign Up
Already have an account?Log In
Login
Sign Up

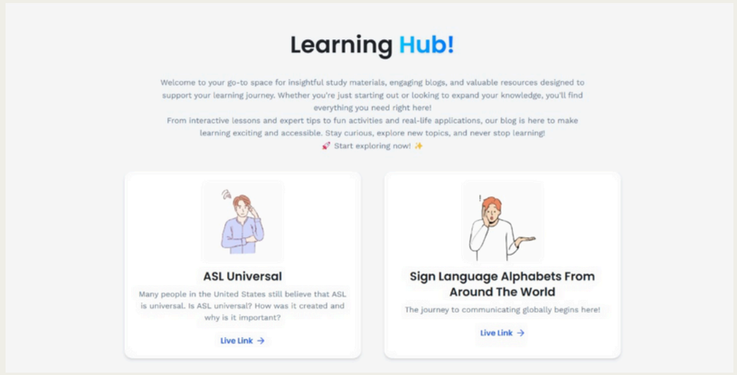

Wanna tell us something ?
Name
Starstreamer
Email
Starstreamer@gmail.com
Your Message
Write your thoughts here...
Submit

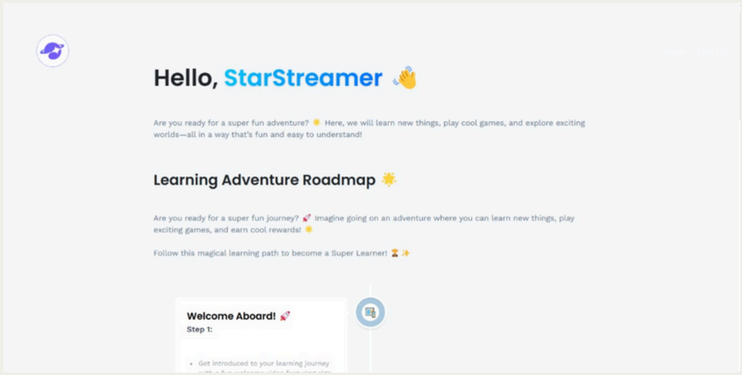

Brainy Arcade
Login
Sign Up
Maths Game
Word Scramble
Column Match
Number Compare
Math Game
Solve the problem and earn points
Stage 1
Stage 2
Stage 3
Number to Beat:
Your Answer:
Click on numbers below
Select a Number:
Check Answer
New Number

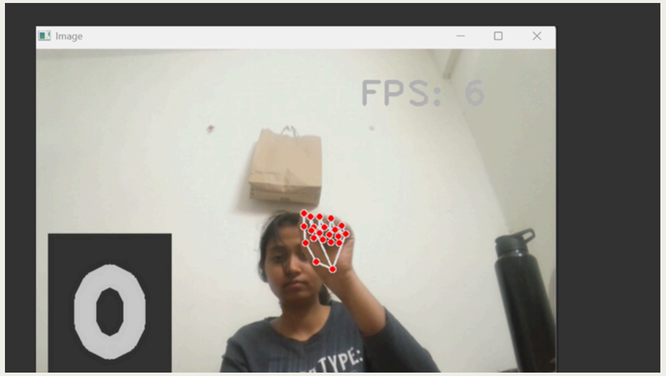

About Us
Login
Sign Up
Who We Are?
We're a bunch of tech wizards, design dreamers, and coffee-fueled innovators on a mission to make digital magic! From crafting user-friendly wonders to building solutions that actually get you, we sprinkle creativity and a pinch of genius into everything we do.
Right now, we're bringing something truly special to life—a fun and interactive learning app for deaf and mute children! Designed with love, technology, and a whole lot of heart, our app makes learning exciting, accessible, and inclusive. Think engaging visuals, smart interactions, and a world where every child can explore, learn, and thrive.


Express & Explore!
A place where hands speak, hearts connect, and learning is full of joy! Our fun-filled classes help little stars express, explore, and grow through sign language, creative play, and interactive learning. let's make learning magical together!
1. Learn ASL !
Ready to dive into the world of sign language? Join 8-year-old Fireese in this fun and engaging music video as she teaches you how to sign the ASL alphabet!
ASL ABC Lesson and Song - Lear...

DEMO


Learning Hub!
Welcome to your go-to space for insightful study materials, engaging blogs, and valuable resources designed to support your learning journey. Whether you're just starting out or looking to expand your knowledge, you'll find everything you need right here!
From interactive lessons and expert tips to fun activities and real-life applications, our blog is here to make learning exciting and accessible. Stay curious, explore new topics, and never stop learning!
Start exploring now!
ASL Universal
Many people in the United States still believe that ASL is universal. Is ASL universal? How was it created and why is it important?
Live Link
Sign Language Alphabets From Around The World
The journey to communicating globally begins here!
Live Link


Hello, StarStreamer
Are you ready for a super fun adventure? Here, we will learn new things, play cool games, and explore exciting worlds—all in a way that's fun and easy to understand!
Learning Adventure Roadmap
Are you ready for a super fun journey? Imagine going on an adventure where you can learn new things, play exciting games, and earn cool rewards!
Follow this magical learning path to become a Super Learner!
Welcome Aboard!
Step 1: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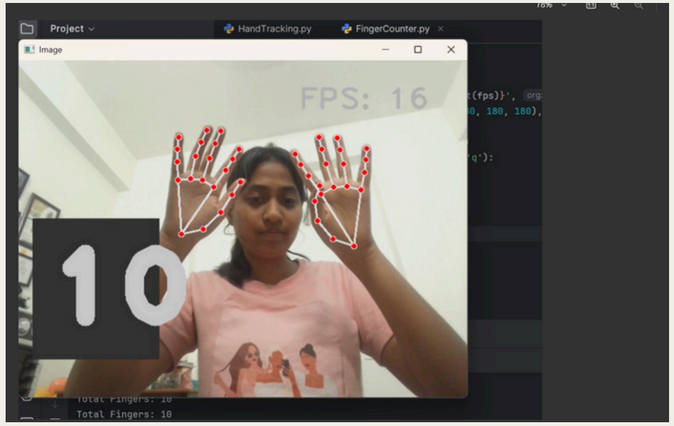
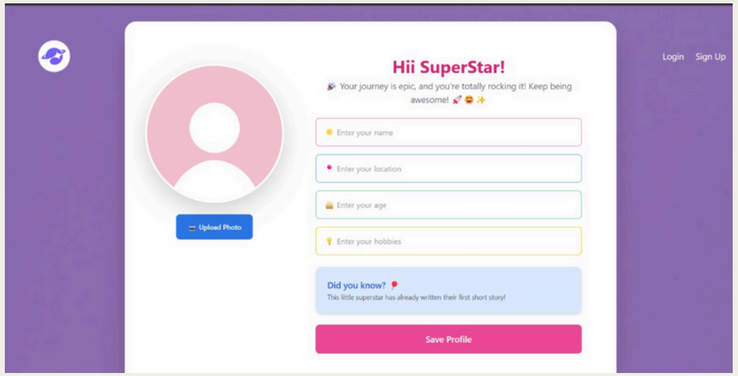
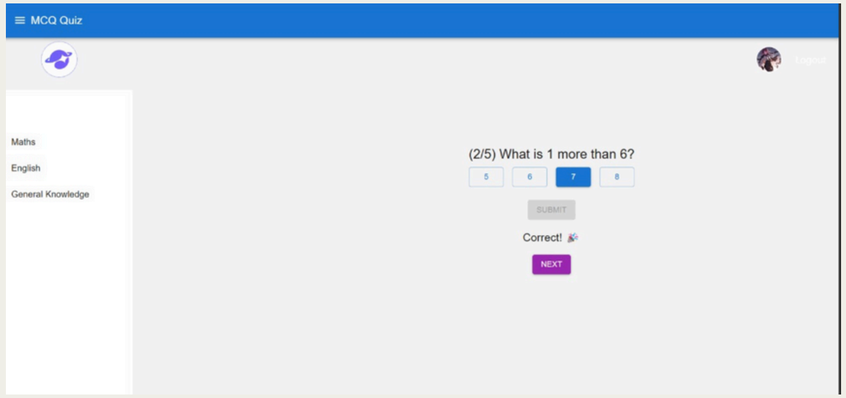

Project
HandTracking.py
FingerCounter.py
Image
FPS: 16
10
Total Fingers: 10


FPS: 16
5


Login
Sign Up
Hii SuperStar!
Your journey is epic, and you're totally rocking it! Keep being awesome!
Enter your name
Enter your location
Enter your age
Enter your hobbies
Upload Photo
Did you know?
This little superstar has already written their first short story!
Save Profile

D E M O


MCQ Quiz
Maths
English
General Knowledge
(2/5) What is 1 more than 6?
5
6
7
8
SUBMIT
Correct!
NEXT

FUTURE SCOPE

Enhance ASL recognition with AI for dynamic gestures and multi-language support.

Integrate AR for immersive learning and enable voice-to-text and text-to-sign conversion for seamless communication.

Implement adaptive learning with AI-driven analytics to personalize content and improve outcomes.

Develop a community platform for collaboration and introduce offline mode with automatic synchronization