

DevCoders

EdTech Tracks
July 2024

Team Details

Team Members :

- Aditi Sharma
- Jatin Ahirwar
- Komal
- Pratyush Gaur

Problem Statement:

EdTech Track

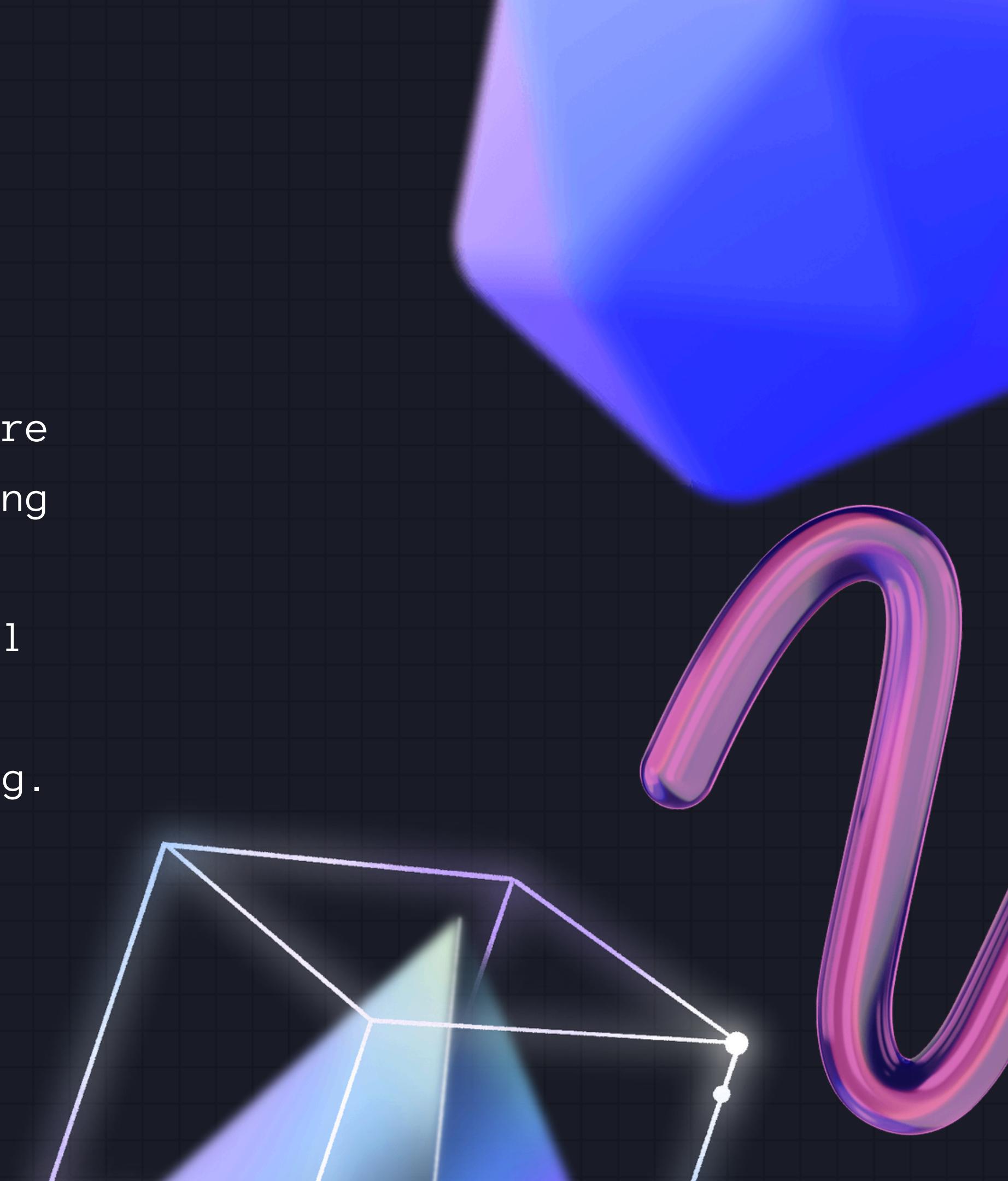
Personalized Learning and Gamified
Homework Assignments

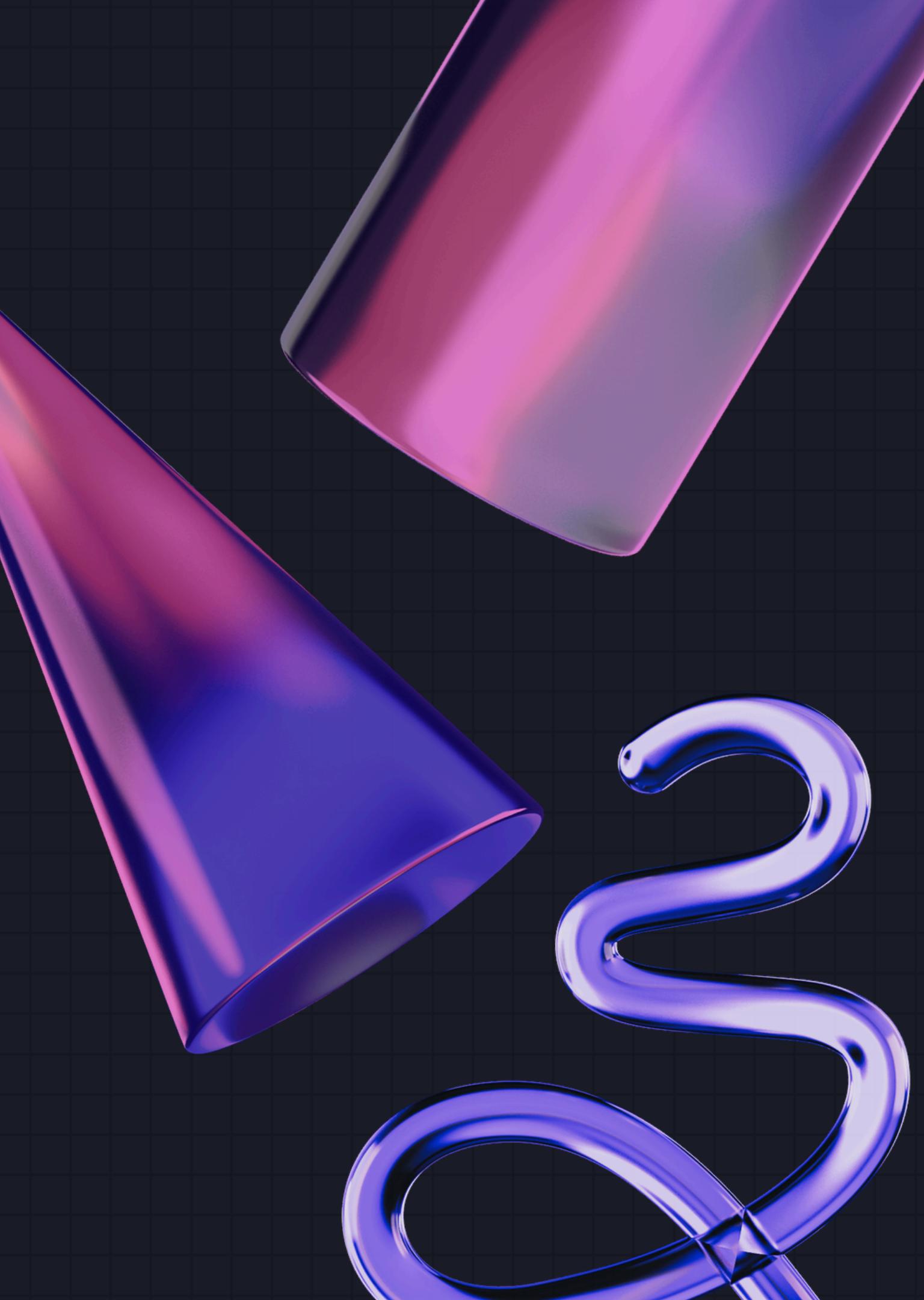
BRIEF ABOUT THE IDEA

Unleash learning fun with our innovative tools:

- Gesture Maths and Gesture Car: Engaging games where math comes to life with gesture controls, adapting to each child's learning style.
- Story Creation Mind Fusion: A dynamic tool that makes learning English and science thrilling through interactive storytelling.

Transform education into an adventure with personalized, gamified experiences!





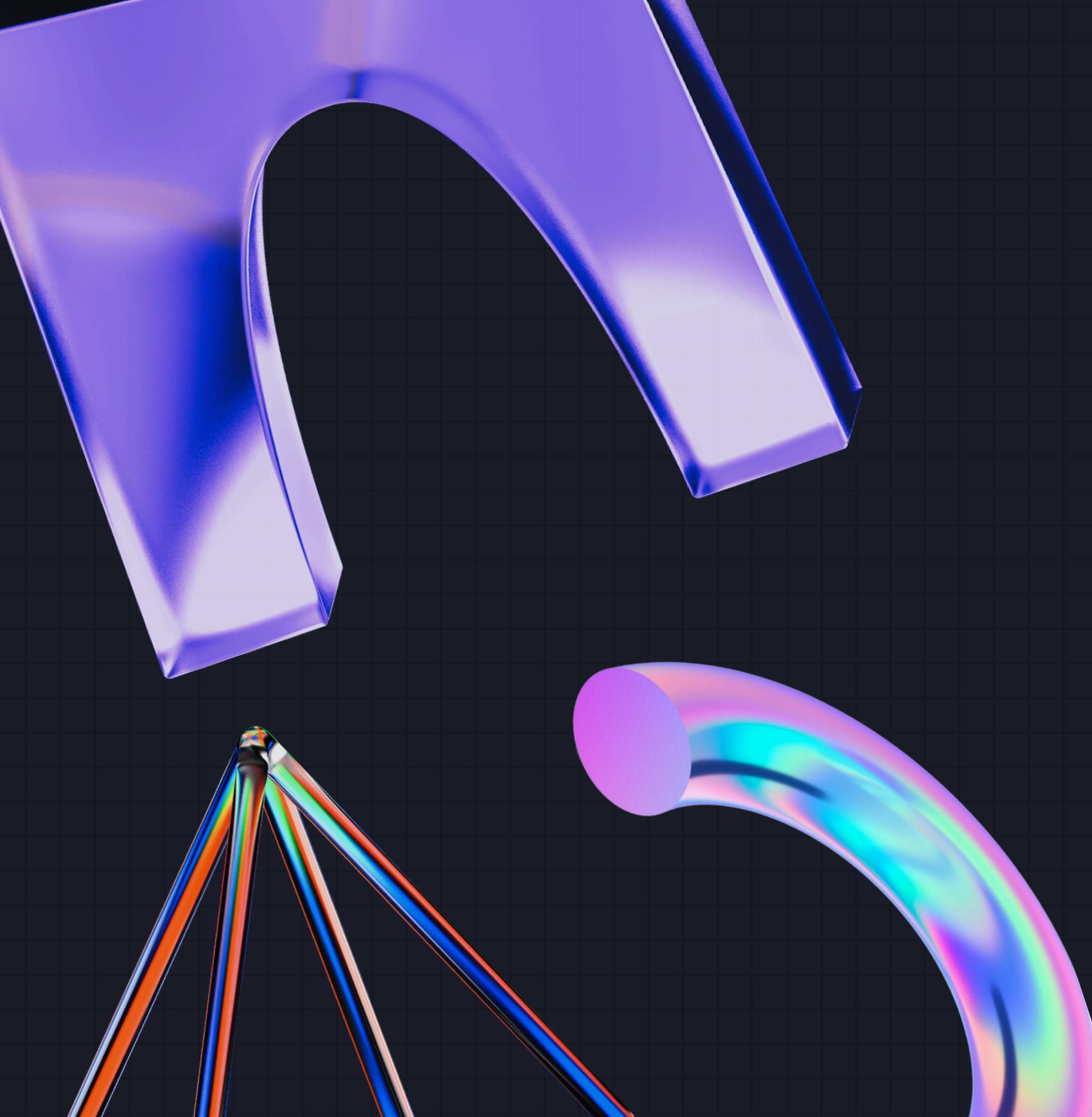
INNOVATION EDGE

DIFFERENTIATION

- Our tools uniquely combine gesture-based controls for math with interactive storytelling for English and science. This approach makes learning more engaging and personalized compared to traditional educational methods.

USP OF THE PROPOSED SOLUTION

- Our solution combines adaptive gameplay with interactive storytelling, offering a highly engaging and personalized learning experience that stands out from conventional educational tools.

A large, semi-transparent 3D model of a hyperbolic paraboloid (hyperbolic dome) is positioned in the upper left corner, casting a soft shadow. In the lower right corner, a smaller, semi-transparent 3D model of a cylinder is tilted diagonally.

UNIQUE ATTRIBUTES

- Gesture-Based Learning
- Gamified Experience
- Adaptive Learning
- Interactive Engagement
- Creative Storytelling
- Integration

ARCHITECTURE DIAGRAM OF THE PROPOSED SOLUTION

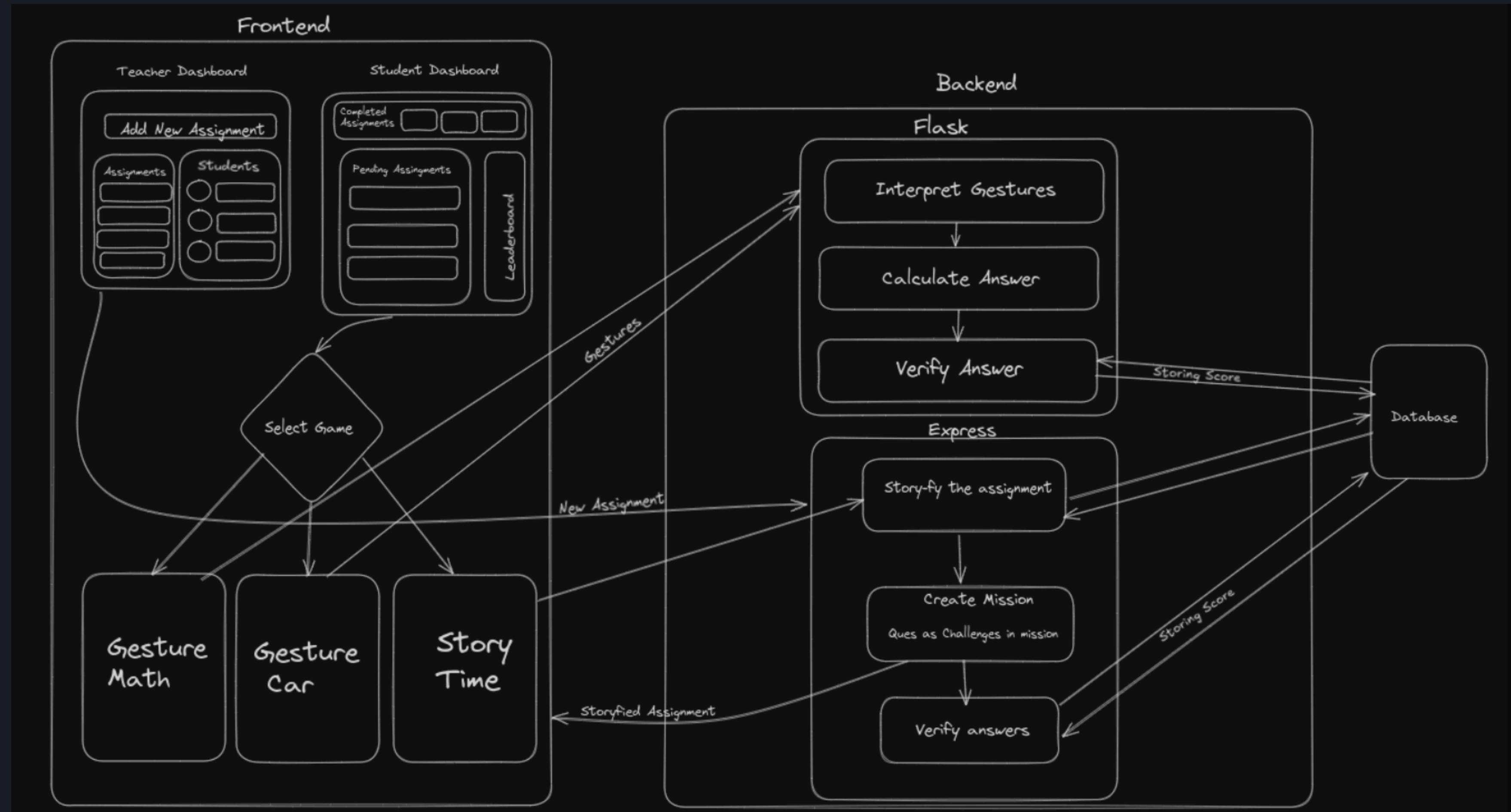
Generate Random Numbers And Operators For Calculation

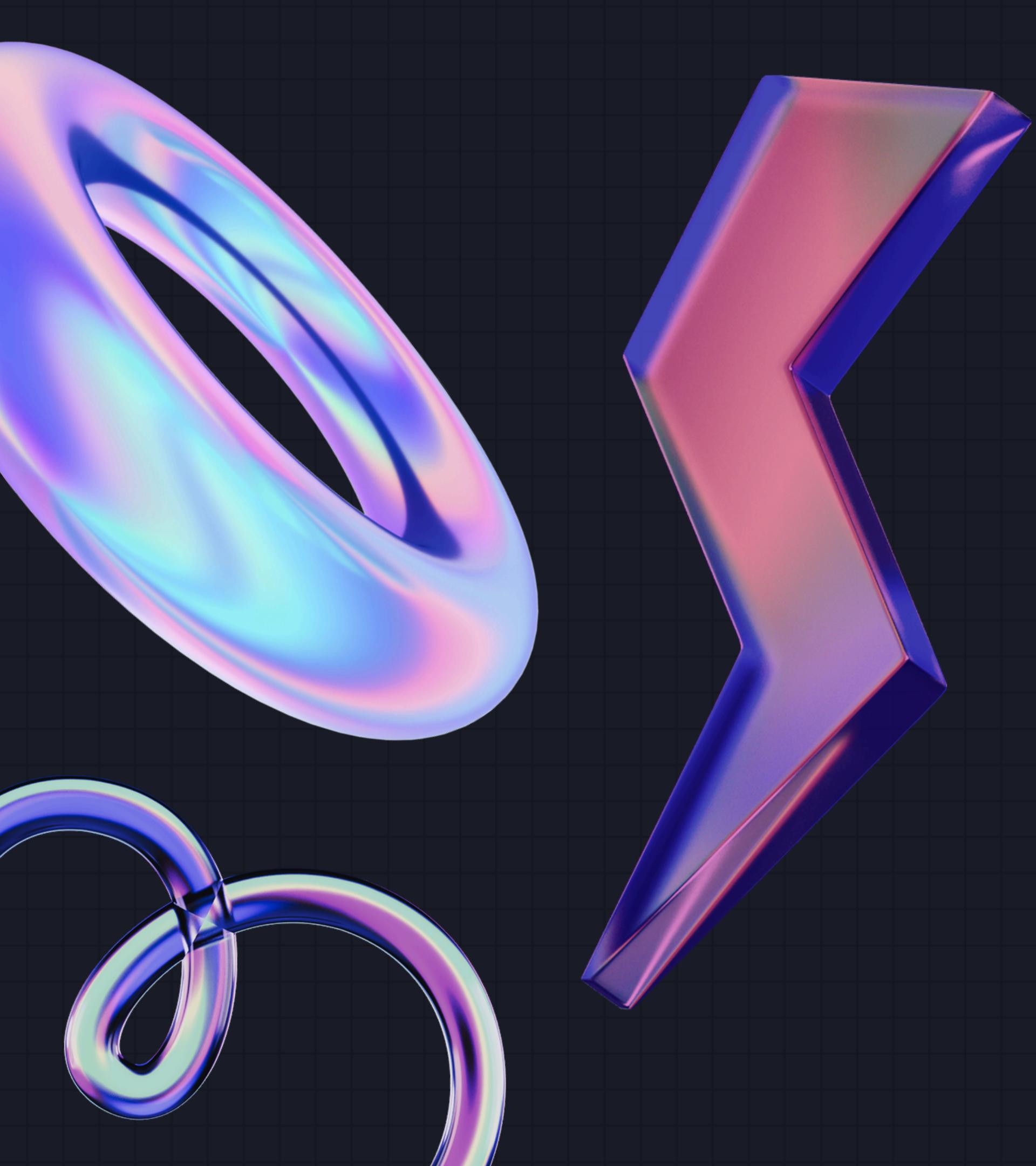


Capture and process hand gestures using
MediaPipe's hand tracking



Show the result of the calculation

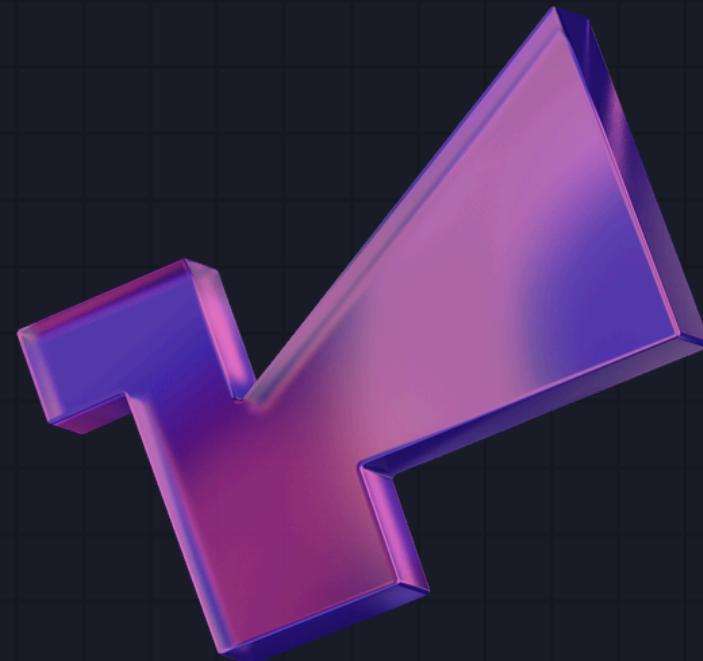


The background features several abstract, glowing 3D shapes in shades of blue, purple, and pink, resembling twisted ribbons or shards of light, set against a dark grid background.

TECH STACK

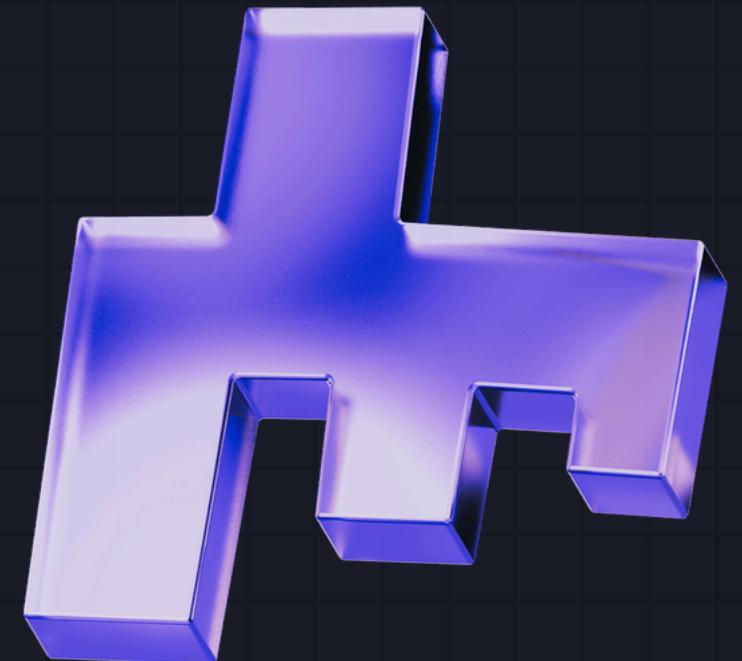
- Python
- OpenCV
- Flask
- MediaPipe
- HTML & CSS
- JavaScript, TypeScript
- Express.js
- MongoDB
- StoryDiffusion
- OpenAI
- Stable Diffusion-Pipeline

FUTURE PERSPECTIVE



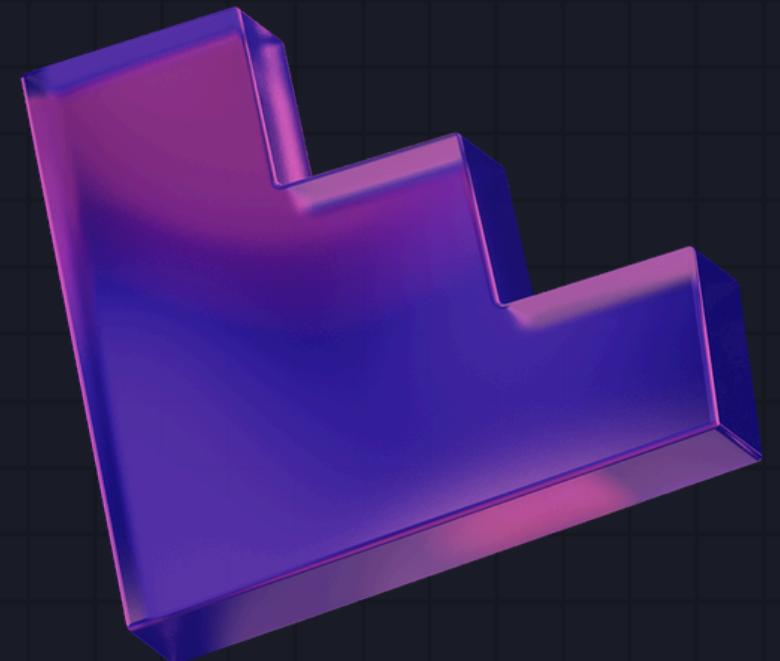
Subject Range

Incorporate additional subjects and languages to broaden educational coverage.



Tab Initiative Integration

Incorporates our solution into govt tab distribution programs, enhancing accessibility through widespread device deployment.



Parental engagement

Integrate tools for parents to track and support their child's learning journey, enhancing home-school connections.

CONCLUSION

THE COMPLETED PROJECT WILL SERVE AS A DEMONSTRATION OF THE POTENTIAL OF COMPUTER VISION TECHNOLOGIES IN CREATING INNOVATIVE AND INTERACTIVE EDUCATIONAL TOOLS FOR YOUNG CHILDREN.



THANK
YOU!

