

# StudyBuddy App

## Learn Smarter, Not Harder

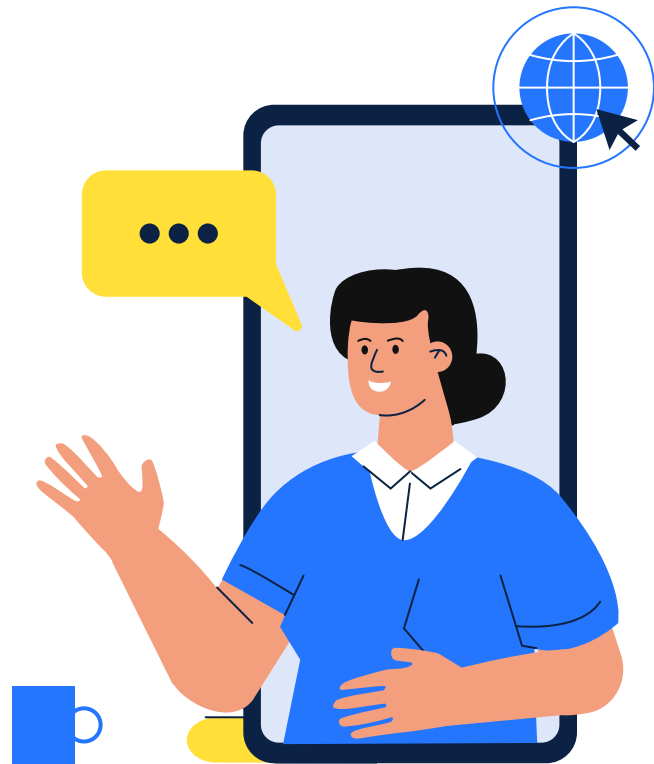
Empower by:



Vertex AI



zilliz



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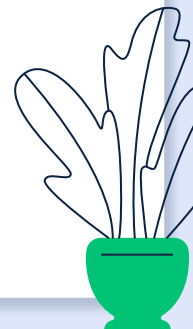
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01.

# Problems



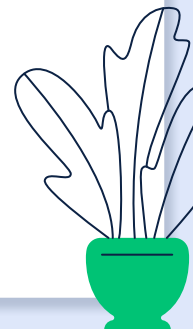
# Problems

- 1. Difficulty in Accessing and Understanding Complex Course Material**
- 2. Inefficient Study Techniques and Time Management**
- 3. Challenges in Preparing for Tests and Identifying Key Learning Areas**



02.

# Solution



## Q&A with Course Content:

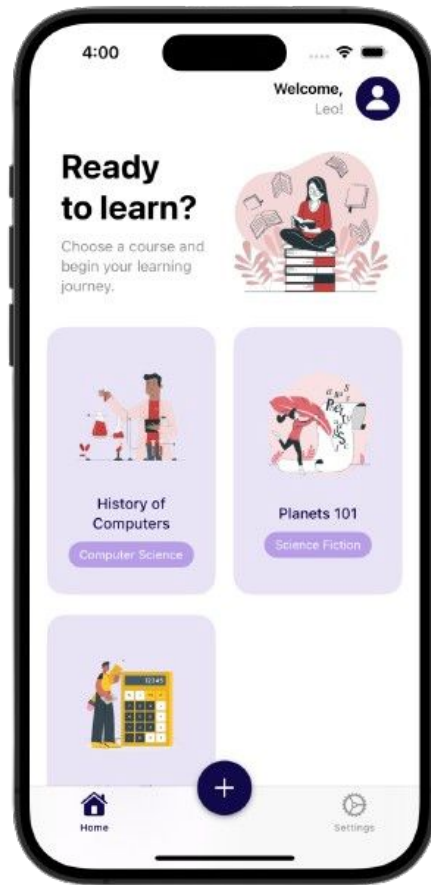
Quickly query images or PDFs from study materials for immediate, accurate answers.

## Effortless Flashcard Creation:

Turn course materials into custom flashcards for efficient study

## Quiz Image Solver

Snap a quiz photo and receive answers sourced from your course materials.



# TruLens: Game changer



## LLMs Explainability

Assistance in Understanding LLMs despite their level of abstraction.



## Advance RAG techniques

Output class format, using Sentence splitters, configuring the chunk parameters.

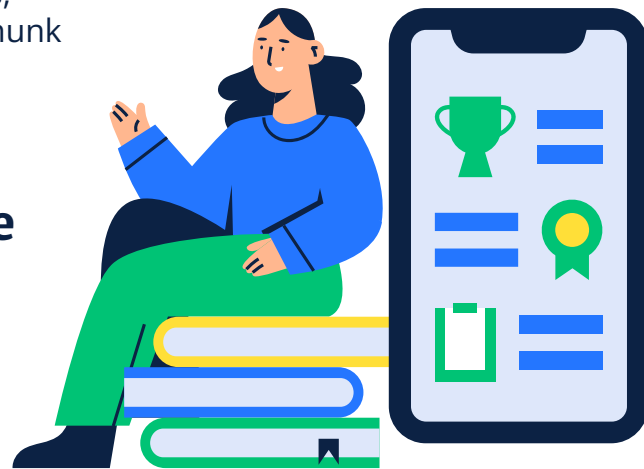


## Find edge cases

Documents with questions at the end.



## Monitor the RAGs in production



# Insights from TruLens



OCR without  
post processing

Context Relevance = 0.3

	question	statement	result
0	Who was the first programmer?	11 Fig 2.3 Babbage's Difference Engine Babbage's Analytical Engine (1833 AD); TI	0.4
1	Who was the first programmer?	History of Computers Definition -Computer machine. WA (. .....00 .....00 of a computer: is a programmable - - Computer is a machine that manipulates data according to a list of instructions.	0.2

**Timeline**

Method

▼ All calls [Select.App](#)

Duration

15806

Poor metrics and  
performance

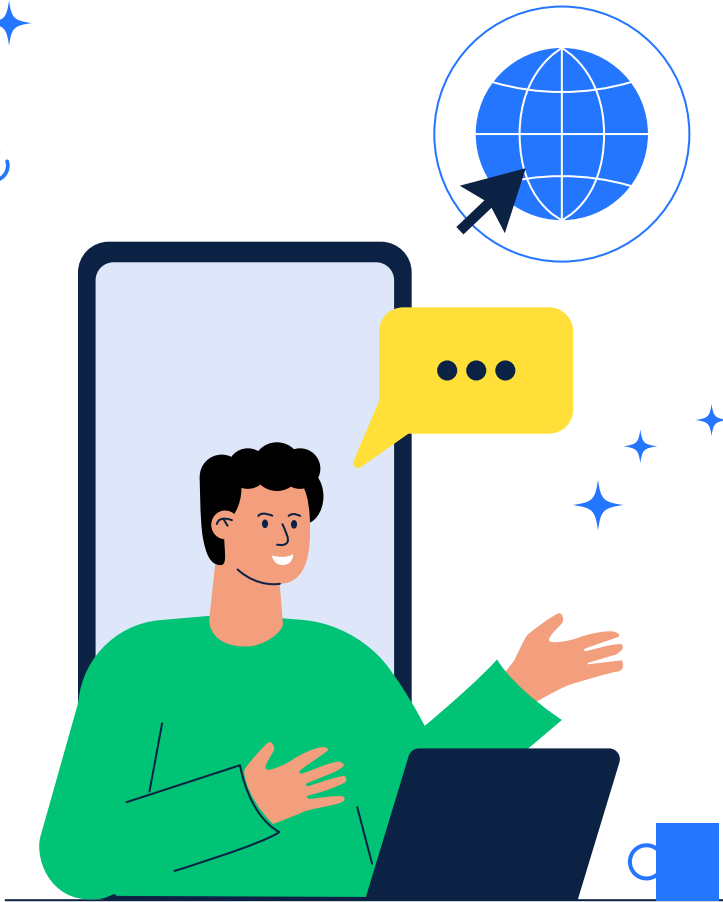
Answer Relevance	Groundedness	Context Relevance	Latency (Seconds)
0	1	0.3	21
1	1	0.3	11





03.

# Market opportunity





**\$ 123.4 billion**

Estimated size of the global educational technology market by 2022

**\$ 342.2 billion**

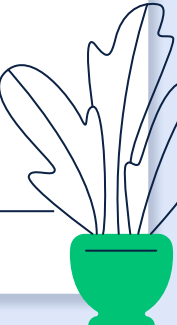
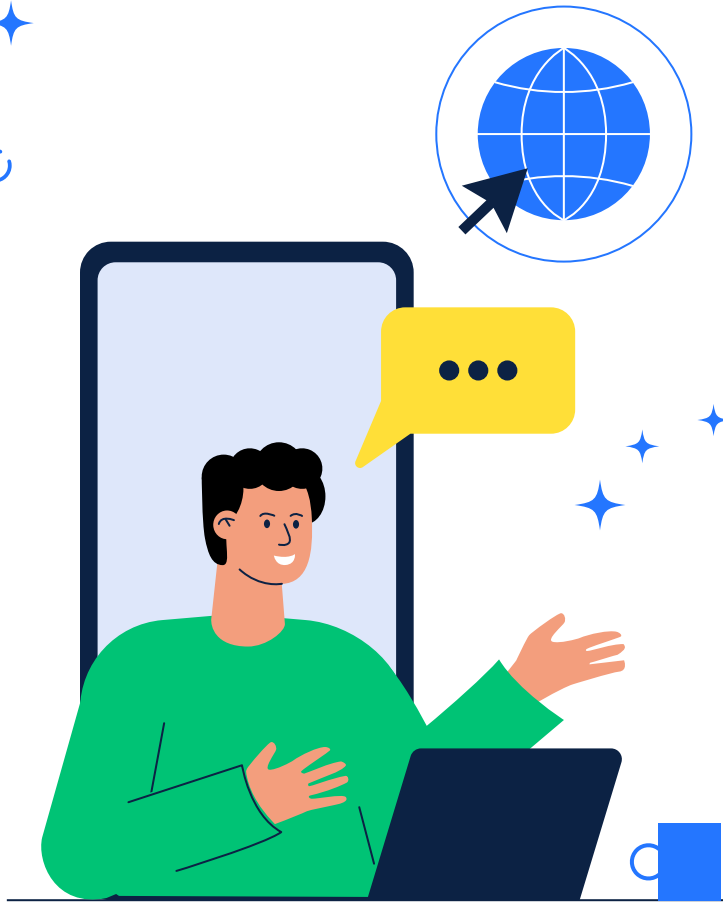
Estimated size of the global educational technology market by 2030

**\$ 0.8 billion**

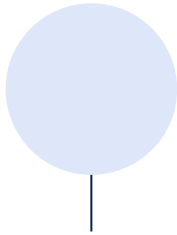
Target market for 2024

04.

# Business Model

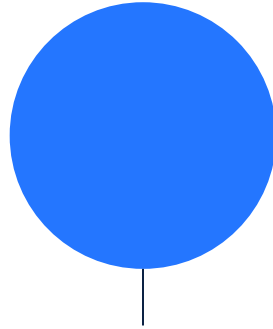


# Business Model



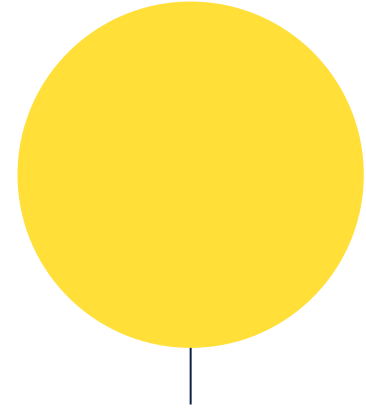
## Free Basic Version with Essential Tools

A free version of the app featuring essential study tools such as basic Q&A with Course Content and limited flashcard creation capabilities.



## Premium Subscription Tiers

Offer tiered subscription plans with escalating features, including advanced Q&A sessions, unlimited flashcard creation, and exclusive access to premium study resources.



## Personalized Learning Recommendations

Utilize data analytics to offer personalized learning recommendations for individual users, improving the overall user experience.



# Competition



## Clutch Prep

**Focus:** Video tutorials and study guides for complex subjects.

**Cons:** Limited learning style adaptation, fixed pace, potential content overload.



## SparkNotes

**Focus:** Study guides for literature, poetry, and academic subjects.

**Cons:** Focus mainly on humanities, general guides lack personalization, may encourage surface-level learning.



## Quizizz

**Focus:** Gamified quizzes for studying and test prep.

**Cons:** Gamification might overshadow learning depth, limited content depth, potential distraction from serious study.



# StudyBuddy: Revolutionizing Learning with TruLens and Vertex AI



## **Comprehensive Evaluation**

Uses TruLens to rigorously assess and improve LLM application quality, focusing on groundedness, relevance, and minimizing toxicity.

## **Iterative Optimization**


Employs an extensive library of feedback functions through TruLens, enabling constant refinement of app performance and user experience.

## **Customized Learning Paths**

Leverages advanced AI to tailor content and study strategies to individual learning styles and goals.

## **Wide Academic Coverage**

Offers extensive resources across various subjects, ensuring in-depth understanding and academic success.



## **Interactive Study Tools**

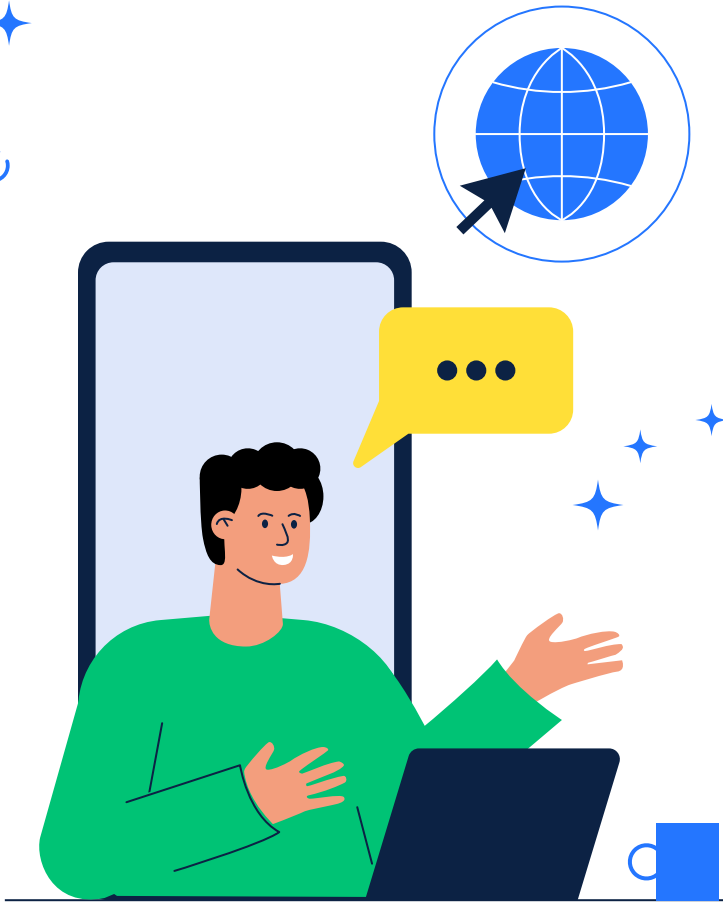
Integrates interactive and engaging study aids, enhancing retention and making learning more enjoyable.

## **Real-Time Analytics**

Provides instant feedback and analytics, allowing students to track their progress and focus on areas needing improvement.

05.

# Tech Stack and Architecture





trulens



Google Cloud  
Speech API



Cloud Vision API

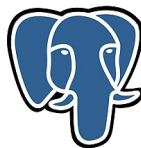


Swift



mongoDB®

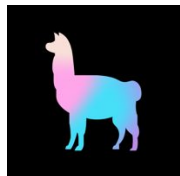
 FastAPI



PostgreSQL



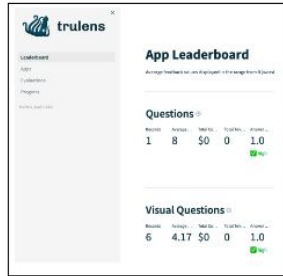
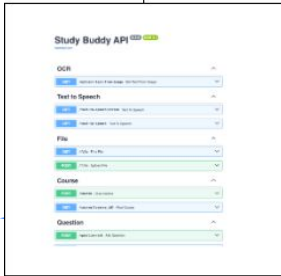
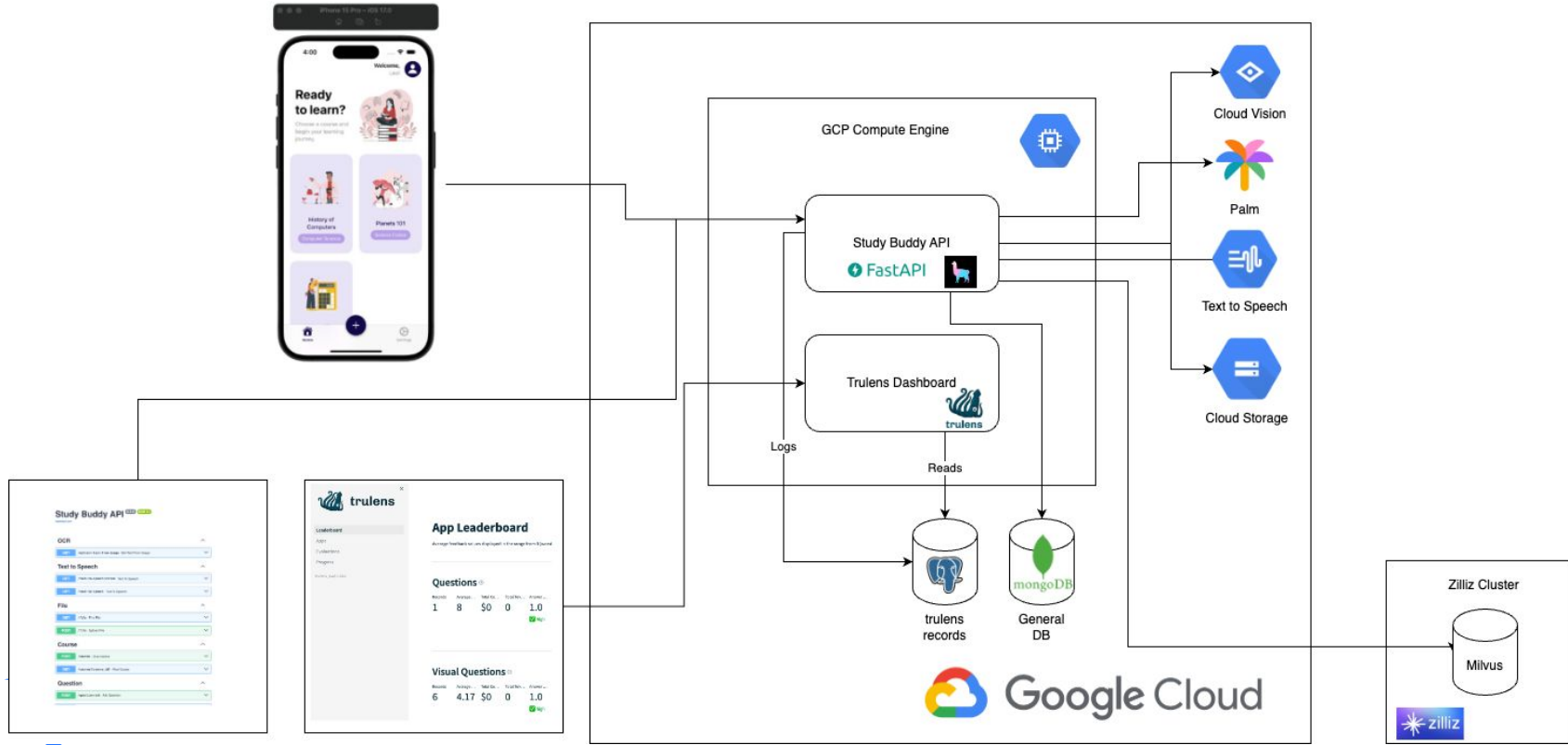
Vertex AI



Google Cloud



# Architecture



# Thanks!



Juan Carlos Ortiz



Yesid López



Steven Quintana



Sara Ortiz

