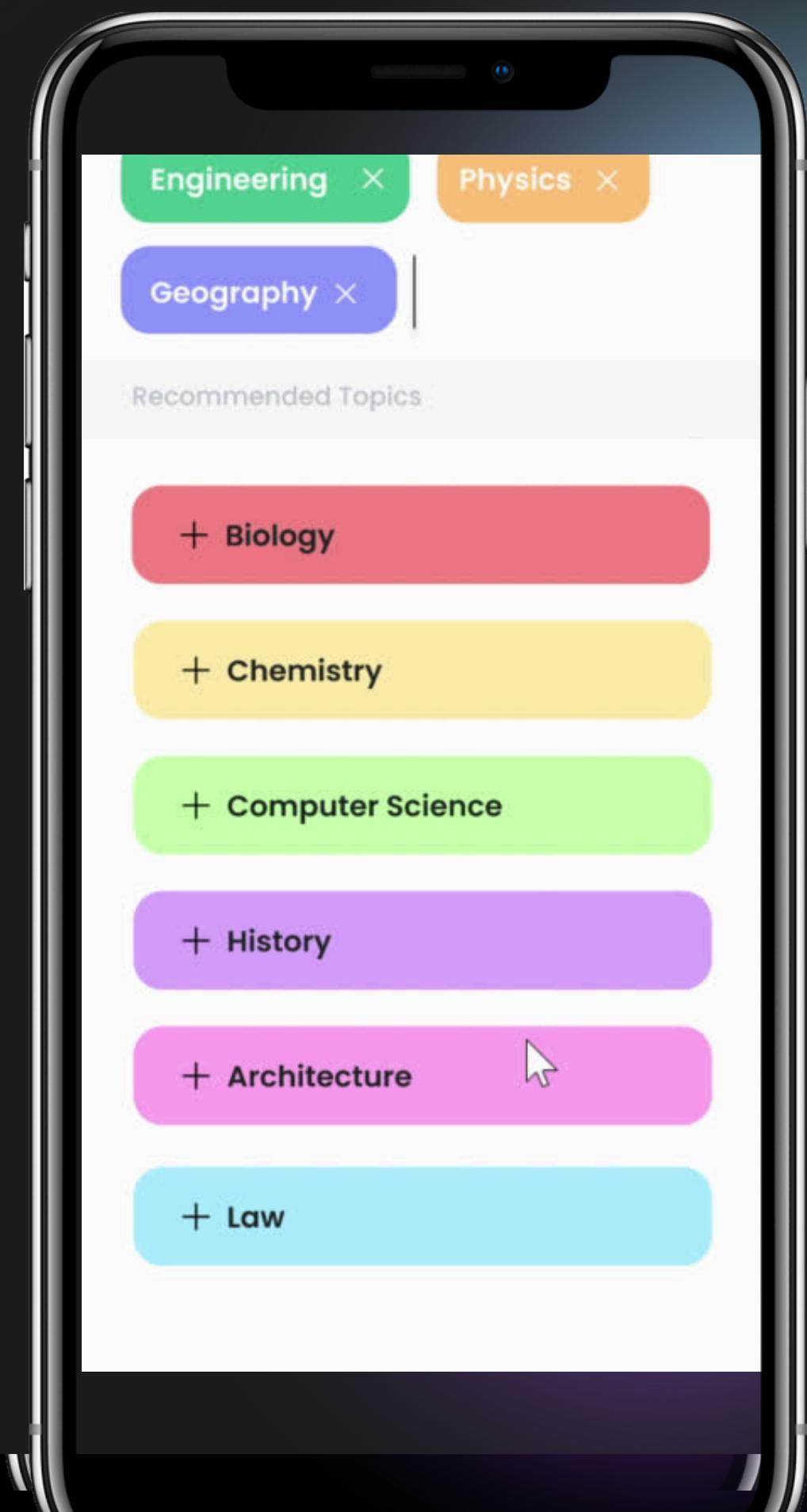


GeekOut 2024 - Team 10

ContextEd

Joy in learning.

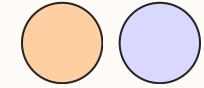
Priscilla Loi, Zi Hao, Olfson, Nian He, Matilda, Bryan



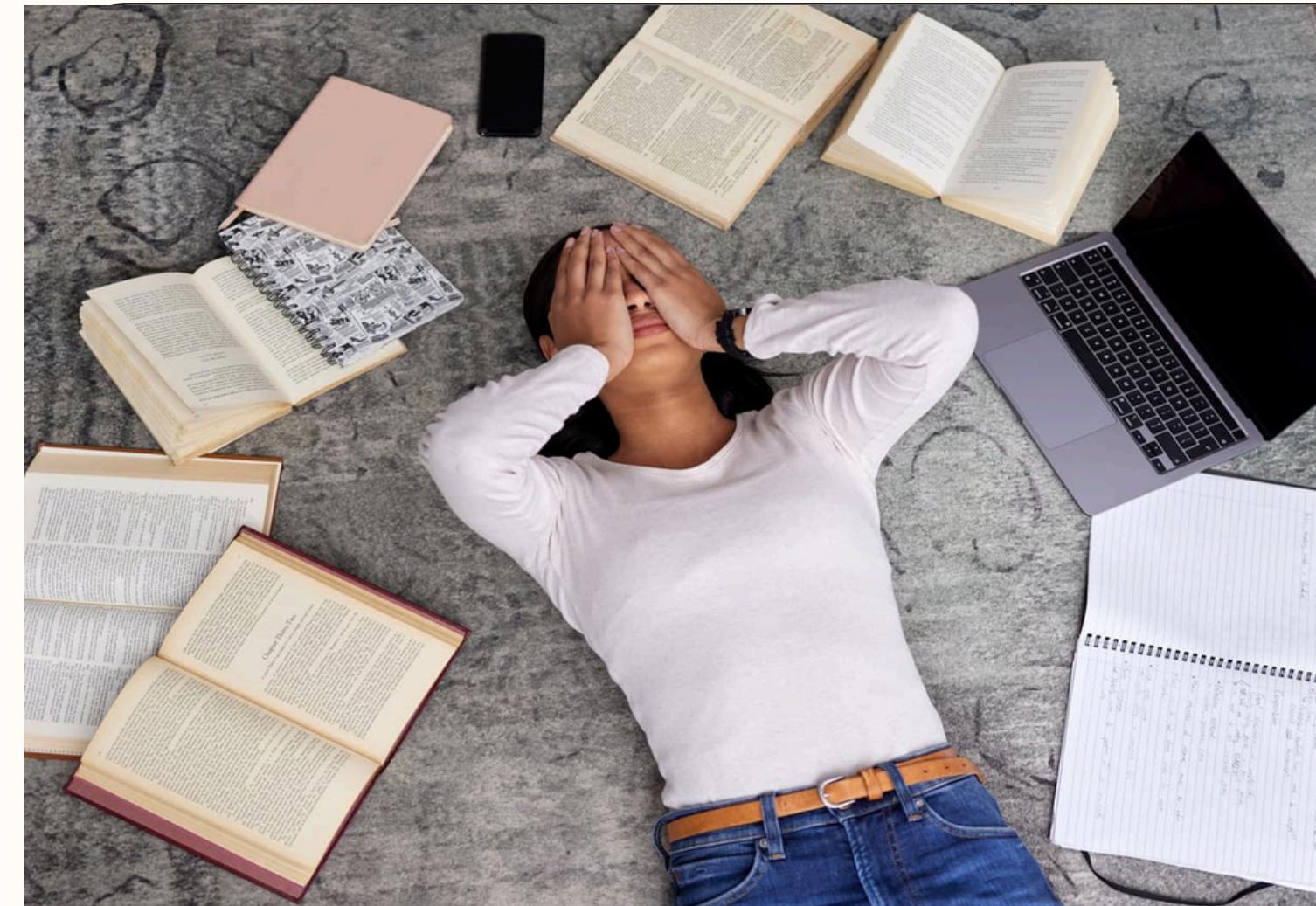
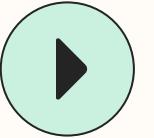


Meet The Team!





The Problem

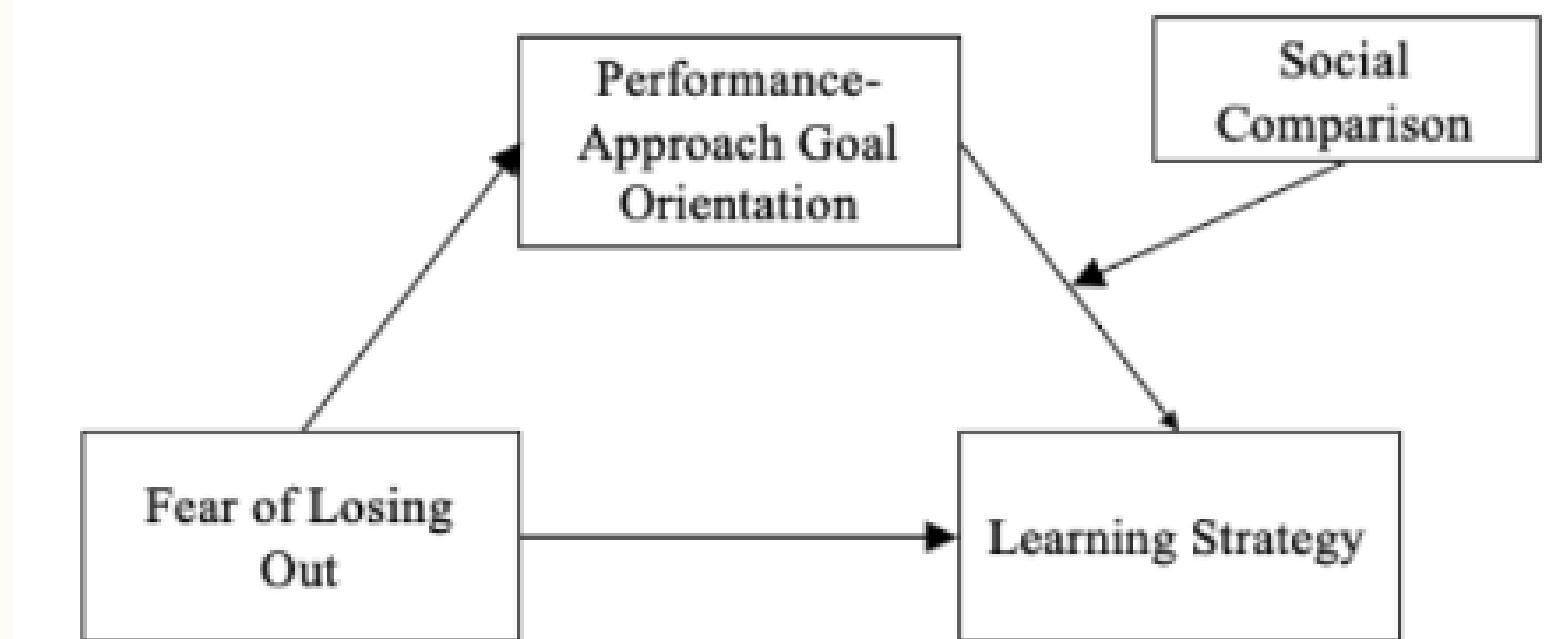


Most students rarely experience joy in the learning process

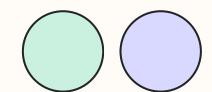
How true is this?

A research study done in 2022 indicated that 72% of Singaporean students were afraid of failure

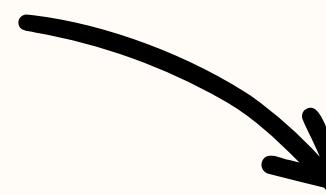
› this shows that students in Singapore are more results-oriented, do not actually seek the joy in learning



Why do we care about this problem?

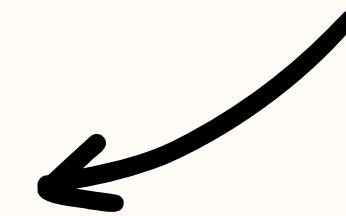


**When joy and fulfilment
is taken out of the
learning process**



**We cease to be
inquisitive, which
leads to lack of
purpose, and creates
a vicious cycle.**

**This leads to students
struggling in school and
experiencing unmoderated
stress on a daily basis.**





Our Persona

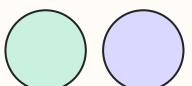
Frustrated Max

Wants to learn beyond school content

Disillusioned

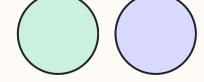
Lack of Purpose in current curriculum

Research and independent study takes time



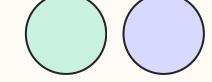


Problem Statement





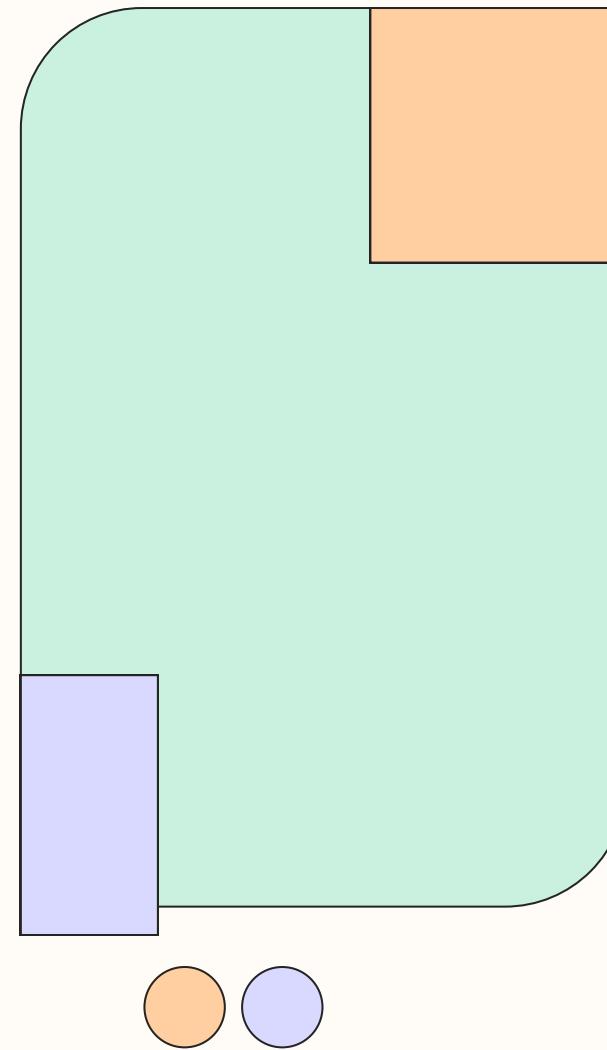
How might we encourage post-secondary students to experience purpose and joy in learning?





How does contextual learning help to solve the issue?

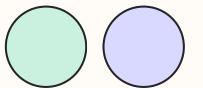
- **Cultivates curiosity in the subject matter**
- **Provides a sense of purpose and motivation**
- **Sense of purpose and joy in learning allows one to better manage academic stress**
- **Better self-awareness about their strengths and weaknesses as well as their interests.**





Research study by UNESCO

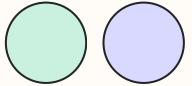
A research study conducted by UNESCO found that contextualised learning significantly improves students' academic outcomes and motivation.



This type of learning makes education more meaningful, helping students understand the practical applications of their knowledge and thereby enhancing their sense of purpose.



Proposed Solution- ContextEd





Existing/Alternative Solutions

ChatGPT

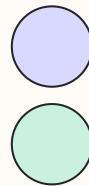
- Summarised points 
- Boring User Interface 

Google

- Basic search function 
- Takes a lot of time to gather relevant research 

ResearchGate

- Comprehensive research base 
- Long, wordy research papers (too technical) 
- Content may not be relevant to all users 



Unique selling point



ContextEd

- Bite sized information, on the go! 
- Summarises concepts 
- Provides visual aids and helpful links 
- Beginner friendly 
- Fun and Interactive UI 
- Tailored learning experience with recommender 



Proposed Solution- ContextEd

ContextEd ▾

String Theory
String theory posits that tiny, vibrating strings make up all particles, aiming to unify all fundamental forces in physics.

Long-shore drift
the movement of sand and sediment down the length of a beach. It is caused by the angle of waves crashing onto the shore.

Aerogel
Aerogel is a super-light, highly porous material known for its excellent insulation and extreme lightness.

Wave-particle duality

Aerogel



Aerogel is an ultralight material derived from a gel, where the liquid component is replaced with gas. Known for its extreme low density and thermal insulating properties, it is composed mostly of air, with a porous structure that provides high surface area. Despite being fragile, ongoing research aims to enhance its mechanical properties for practical applications.

“related concepts” => provides meaning for previously learned concepts (contextualised learning)

Related concepts:

- Cryogel
- Hydrogel
- Superinsulation

Related Article Links:

<http://www.aerogel.org/>

<https://www.aerogel.com/>

links to more detailed articles



Product Overview (Frontend)

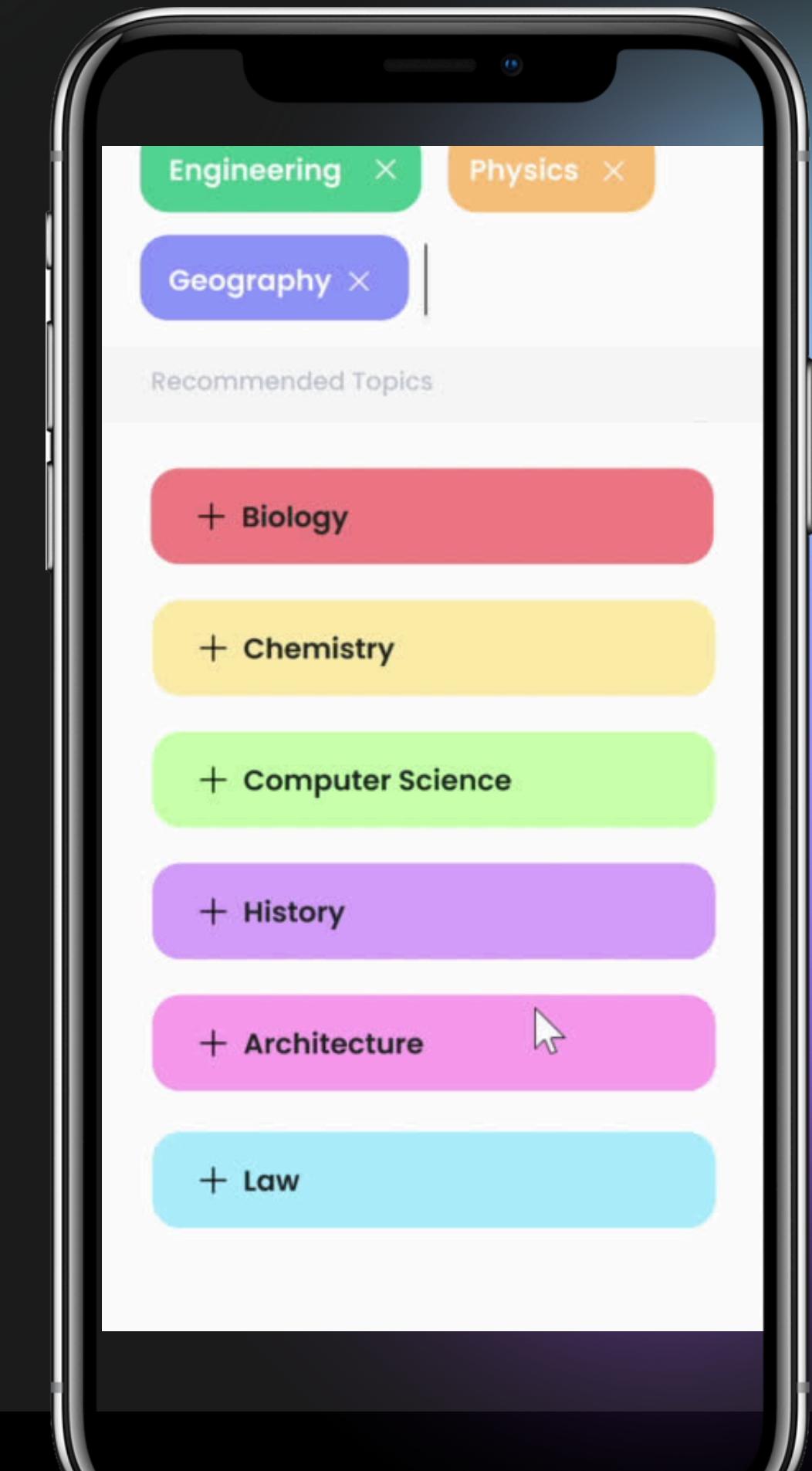


- Leading Technological Product Options

ContextEd

Perfect for today's busy learners.

- Bite-sized topics across a variety of courses
- Tailored learning difficulty with recommendations.
- Consolidate learnings on bookshelf



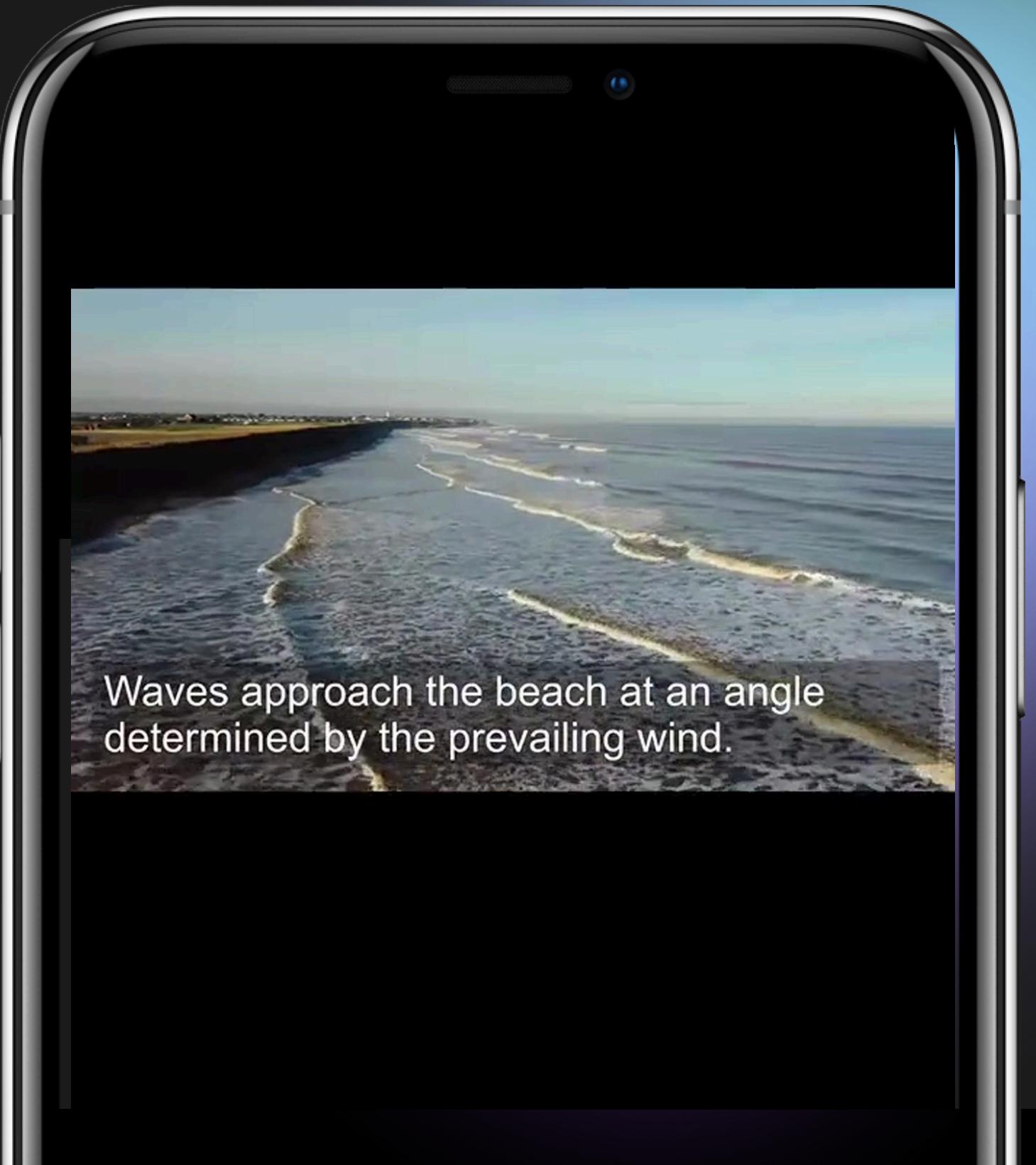
ContextEd

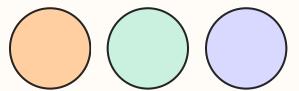
Can't visualise your content?

We got you covered.



Longshore (littoral) drift is the movement of material along the shore by wave action.





Backend



Logging In

The screenshot shows a Postman interface with the following details:

- Method: POST
- URL: <http://localhost:8000/login>
- Body tab selected
- Content Type: application/json
- Body content:

```
1 {  
2   "username": "JeffLearner",  
3   "password": "password"  
4 }  
5 }
```

Backend (Recommendations)

Product Launch Presentation



POST <http://localhost:8000/recommend> Send

Params Authorization Headers (8) **Body** • Scripts Settings Cookies

none form-data x-www-form-urlencoded raw binary GraphQL JSON [Beautify](#)

```
1 {  
2   "username": "JeffLearner",  
3   "domain": "technology"  
4 }  
5
```

Body Cookies Headers (7) Test Results

Status: 200 OK Time: 10.37 s Size: 1.55 KB [Save as example](#) [...](#)

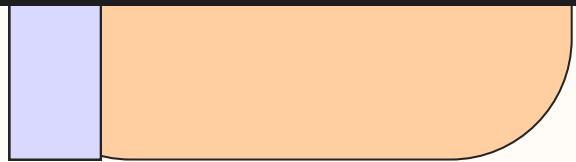
Pretty Raw Preview Visualize JSON [JSON](#) [Copy](#) [Search](#)

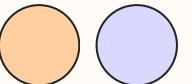
```
1 {  
2   "response": "Sure! Here are some recommended resources for learning about technology:\n1. **Codecademy** (https://www.codecademy.com/): Learn coding languages through interactive lessons.\n- Offers courses in programming languages such as Python, JavaScript, HTML/CSS.\n2. **Coursera** (https://www.coursera.org/): Online courses on a variety of topics, including technology.\n- Provides courses in data science, computer science, information technology.\n3. **edX** (https://www.edx.org/): Free online courses from universities and institutions.\n- Courses covering computer science, software development, cybersecurity.\n4. **Khan Academy** (https://www.khanacademy.org/): Educational platform with courses in various subjects, including computer science.\n- Offers introductory courses on coding, algorithms, and web development.\n5. **MIT OpenCourseWare** (https://ocw.mit.edu/): Access to course materials from MIT's engineering programs.\n- Includes resources on computer science, artificial intelligence, and robotics.\n6. **TechCrunch** (https://techcrunch.com/): News website focused on technology and startups.\n- Stay updated on the latest trends in technology and read about new innovations.\n\nBy utilizing these resources, you can enhance your knowledge and skills in various technology-related fields."}  
3 }
```

Backend (Chat History)



```
[  
- {  
-   "username": "JeffLearner",  
-   "timestamp": "2024-06-21T03:50:58.850Z",  
-   "messages": [  
-     {  
-       "role": "user",  
-       "content": "Give me links to resources about technology to learn, and summarize the content into bullet points that's easy to understand"  
-     },  
-     {  
-       "role": "system",  
-       "content": "Sure! Here are some recommended resources for learning about technology:\n\n1. **Codecademy** (https://www.codecademy.com/): Learn coding languages through interactive  
-     }  
-   ]  
- }  
]
```



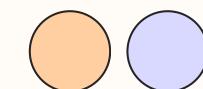


Key-Performance Indicator



Key-Performance Indicator

- **Increased Participation in Extracurricular Activities**
- **Improved Performance in Standardized Tests**
- **Increased Web Traffic to Educational Resources**
- **Higher Enrollment in Advanced or Elective Courses**





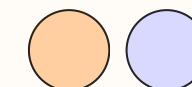
Future Improvements

Questionnaire and profiling system

Better assessment of user's background information when it comes to a certain topic, which recommends them content suited for their technical level of knowledge

Images and Animations

Further enhance users' learning experience



Conclusion

With concise, impactful cards, we bridge the gap between classroom concepts and real-world applications, making learning engaging and relevant.

Start building your bookshelf today and see how far your knowledge can take you!



Thank You!



Q&A