LEARNSAT

Personas/ UX Map

Sera Johnson, Amy Kitti, Anna Pham,
Ava Watson, and Kalvin Nguyen

HALEY WATTERSON



WHO AM I

Watterson is a 35-year-old **private school teacher** with a passion for igniting her students' curiosity in physics, biology, and engineering. As the **head of the science department**, she is committed to enhancing both staff and student satisfaction

GOALS

Watterson is dedicated to enhancing **student engagement** through innovative experiments and projects, believing that **hands-on experiences** are essential for a deeper understanding of scientific concepts. She is actively seeking programs like LEARNSat to provide her students with **practical applications** of the topics they explore in class.

NEEDS & MOTIVATIONS

- Educational resources that align with current scientific advancements and academic testing standards
- **Interactive projects** for Students to better understand STEM concepts

PAIN POINTS

Balancing **limited access**, a need to cover **extensive curriculum** requirements, and ensuring students gain **hands-on experience**

CHARLES GLICKER



WHO AM I

Charles is a starry-eyed **high school student** with dreams of joining NASA and making his mark in the world of satellites. As a current junior, he is involved in his school's robotics team and tutors students in physics.

DESCRIPTION

Glicker is eager to showcase his ambition in **college applications and interviews.** Captivated by **space exploration** and thrives on hands-on learning experiences, he would participate in the LEARNSat Program to showcase his passions, put his education to practice, and gain a greater understanding of **project proposals and data gathering**.

NEEDS & MOTIVATIONS

- College **Applications** and Interviews
- **Resume** Building and Internships
- Future **Career** in Space Related fields

PAIN POINTS

Limited opportunity as an individual to obtain access to small satellite programs - both due to funding and availability

LAURA SIMMONS



WHO AM I

Simmons is a 45-year-old **private school administrator** and **curriculum director** with two decades of experience in education. She is dedicated to finding new ways to boost school pride and foster community involvement.

GOALS

She is committed to building **strong relationships** among staff, parents, and students while delivering essential support. Her interest in the LEARNSat program stems from a desire to **enhance community** involvement, **boost the school's appeal** to prospective families, and **strengthen academic competitiveness** through unique course offerings.

NEEDS & MOTIVATIONS

- **Develop and implement innovative programs** to boost student achievement, college readiness, and staff satisfaction.

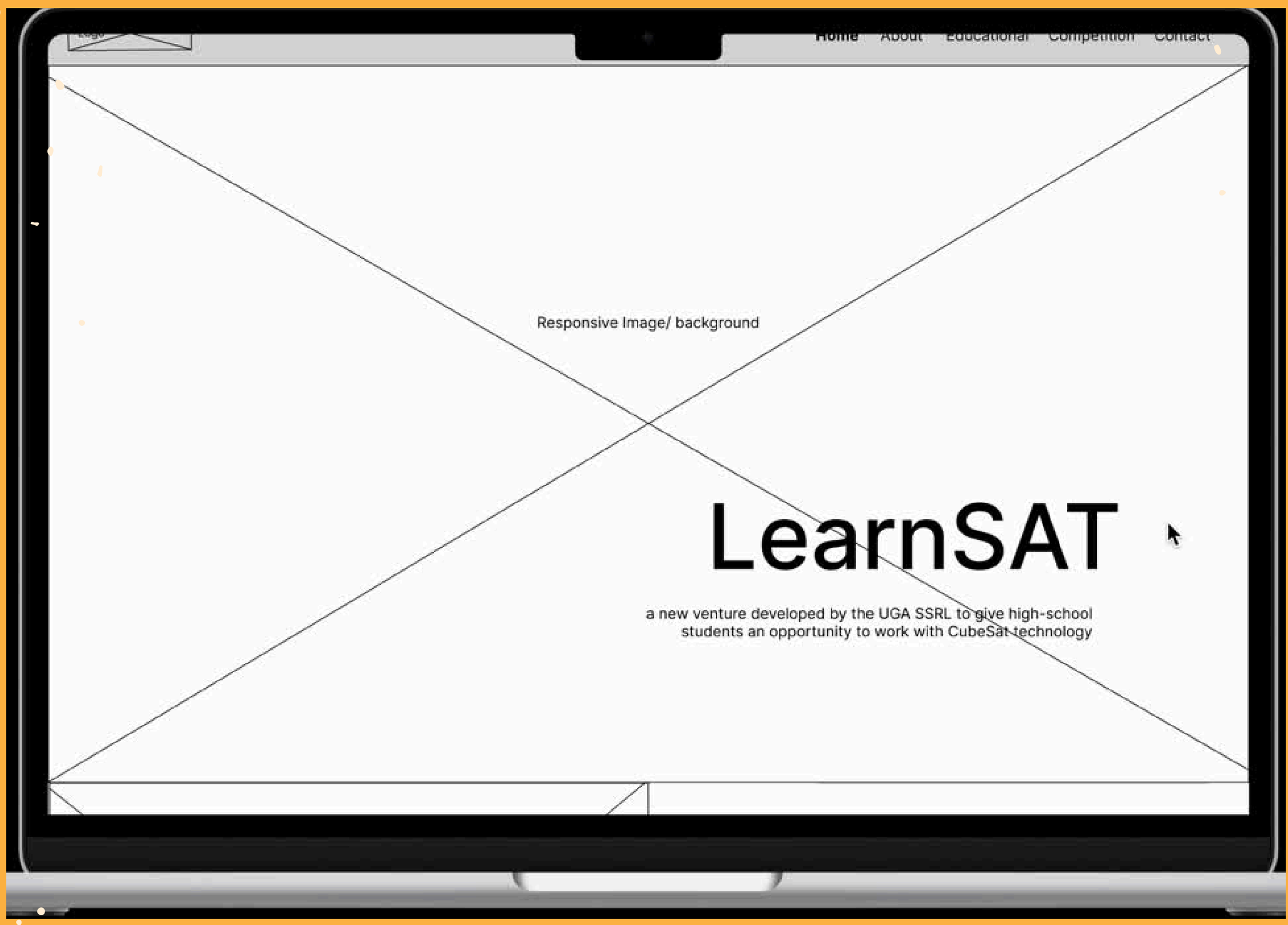
PAIN POINTS

Garnering **funding** and administrative **support** to invest in new technologies that would give students and faculty an edge in STEM education

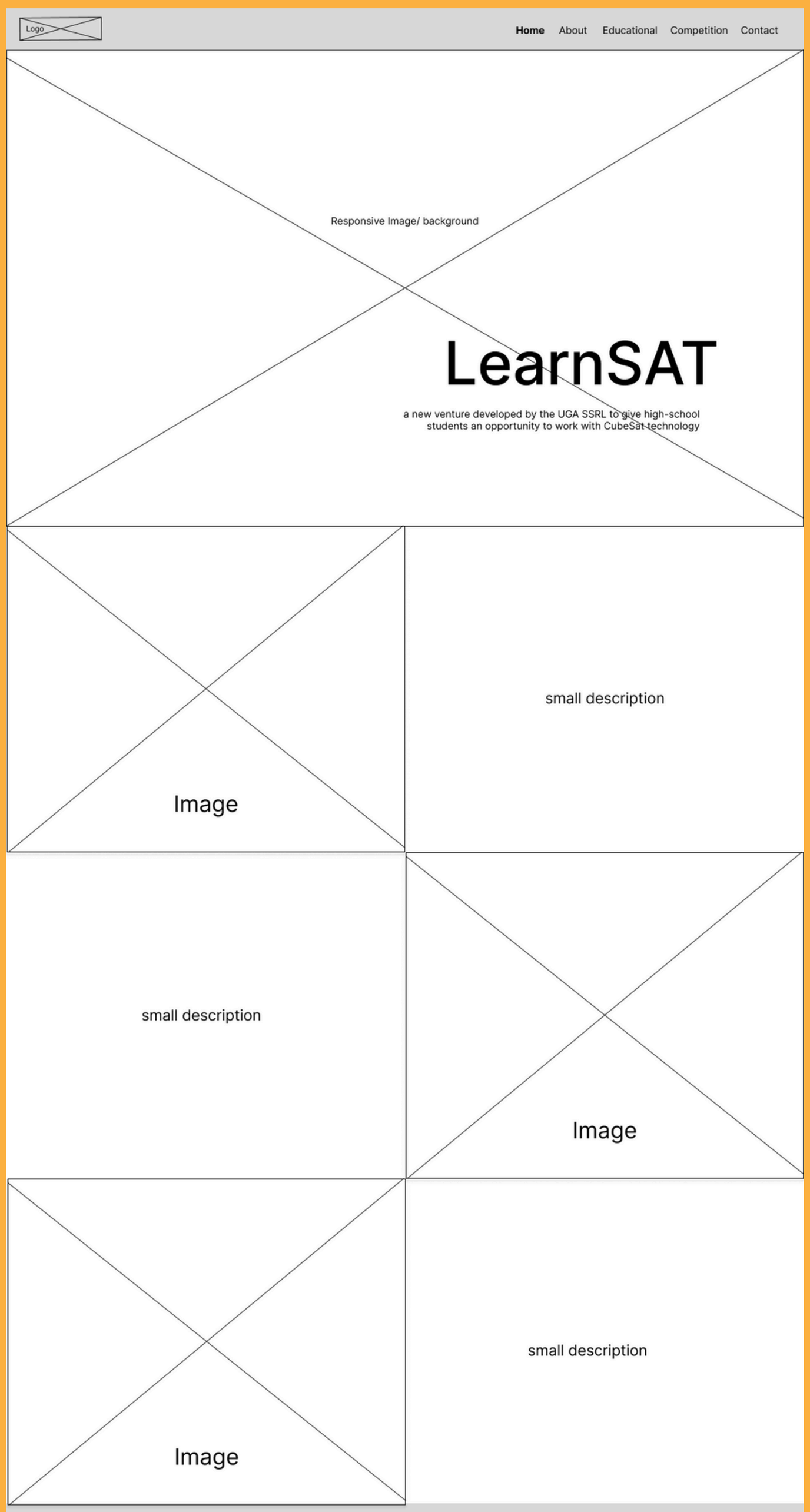
UX MAP

Figma Link

Video Link



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LearnSAT
a new venture developed by the UGA SSRL to give high-school students an opportunity to work with CubeSat technology
Image
small description
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ABOUT PAGE

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LearnSAT

Low-Earth Accessible Research Network Satellite

satellite kit program paired with an online learning platform for students to review guides, tutorials, and learning modules to construct a payload ready for launch

Who are we

LEARNSat Kits will consist of the Satellite bus and the educational content required to assemble it and help develop the payload.

Completed LEARNSats will be launched using weather balloons making it a sub-orbital mission, thereby overcoming exorbitant launch costs.

Through the LEARNSat program, high schools will be given an opportunity to be involved by creating payloads housed in satellite buses developed by UGA SSRL that will be given to them as part of LEARNSat kits.

Our Goals

We benefit students with hands-on experience in researching the Earth's stratosphere.

We have interactive quizzes to maintain student engagement and overall retention of learned content.

Our LEARNSat kits are affordable to school systems and designed to engage passionate students in interactive learning.

History

2016

Official Founding of the Small Satellite Research Laboratory

Our Missions

SPOC
Spectral Ocean Color Satellite

MEMESat-1
Mission for Education and Multimedia Engagement Satellite

MOCI
Multi-view On-board Computational Imager

Image

Interested school systems should reach out to UGA's Small Satellite Research Lab at ssrluga@uga.edu to enter the initial competition phase.

Connect with us!

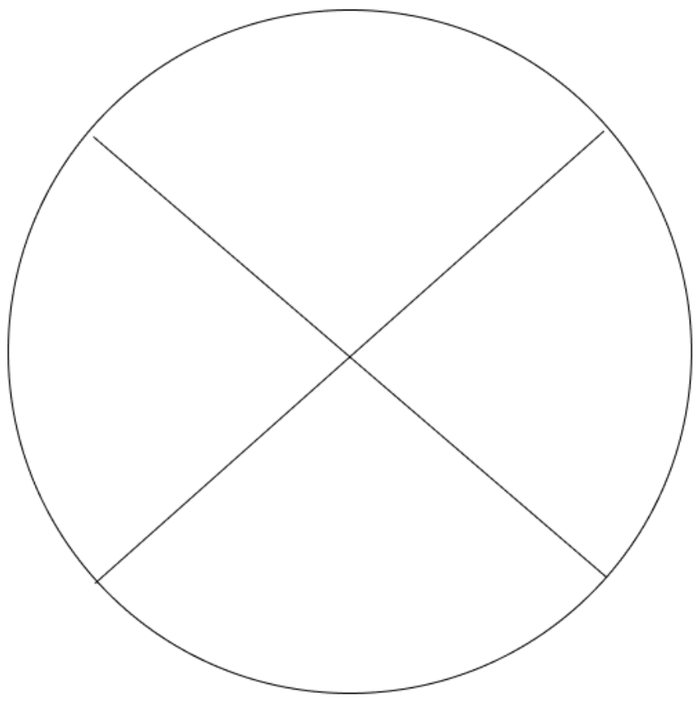
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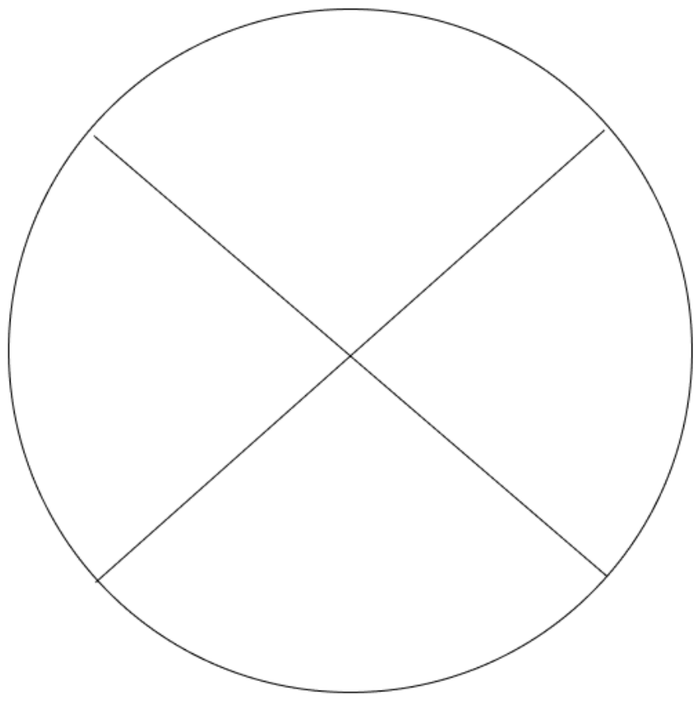
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Welcome!

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Password

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Start Learning!

LearnSatEd will provide you with UGA educational content and quizzes to help you launch your satellite!

Take Course

0 of 3 lessons completed (0%)

Module 1: Introduction

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Module 1: Introduction

Lesson 1: What is a small satellite

Lesson 2: Satellite Quiz

Lesson 3: NASA Satellite History

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Lesson 1: What is a small satellite?

A small satellite, often referred to as a smallsat, is a type of spacecraft that is significantly smaller and lighter than traditional satellites. Typically weighing between a few kilograms to around 500 kilograms, small satellites are designed for a variety of purposes, including Earth observation, scientific research, telecommunications, and technology demonstrations.

Small satellites are often more cost-effective to build and launch, allowing for rapid development and deployment. They can be launched individually or in groups (ridesharing) on larger rockets. Advances in miniaturization and technology have enabled small satellites to carry sophisticated instruments, making them capable of performing complex missions.

Common types of small satellites include CubeSats, which are standardized units measuring 10×10×10 cm, and nanosatellites, which are slightly larger but still within the small satellite category. Their versatility and lower costs have made them increasingly popular in recent years for both commercial and educational purposes.

Small satellites, often referred to as smallsats, are compact spacecraft that typically weigh between a few kilograms and 500 kilograms, making them significantly smaller and lighter than traditional satellites. Among the various types of small satellites, CubeSats are particularly notable; they are standardized units measuring 10 cm on each side and can be combined in different configurations, while nanosatellites weigh between 1 to 10 kg and microsatellites range from 10 to 100 kg. The advantages of small satellites include cost-effectiveness, rapid development timelines, and flexible launch options, as they can often be deployed as secondary payloads on larger rockets, reducing overall costs. Their applications are diverse, encompassing Earth observation, communications, scientific research, and educational purposes, with many universities developing CubeSats to provide hands-on experience in satellite technology. However, small satellites face challenges such as limited power and resources, shorter operational lifespans, and increasing complexity in managing radio frequency interference due to the growing number of satellites in orbit. Looking ahead, trends such as swarm technology—where multiple small satellites work collaboratively—and increasing commercialization through private investments are expected to further enhance their capabilities and applications, making small satellites a transformative force in the space sector.

Complete

0 of 3 lessons completed (0%)

- ⊗ **Lesson 1: What is a small satellite?**
- ⊗ Lesson 2: Satellite Quiz
- ⊗ Lesson 3: NASA Satellite History

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Lesson 2: Satellite Quiz

Take Quiz

1 of 3 lessons completed (0%)

- ⊗ Lesson 1: What is a small satellite?
- ⊗ **Lesson 2: Satellite Quiz**
- ⊗ Lesson 3: NASA Satellite History

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Lesson 2: Satellite Quiz

1. What layer of the atmosphere is the intended target of your satellite?

- ◯ Thermosphere
- ◯ Mesosphere
- ◯ Stratosphere
- ◯ Troposphere

2. A satellite payload is the catch-all term for all instruments on a satellite meant to collect data.

- ◯ True
- ◯ False

3. What is one of the main advantages of small satellites compared to traditional large satellites?

- ◯ They can carry heavier payloads.
- ◯ They are more affordable and faster to develop.
- ◯ They are designed for longer mission durations.
- ◯ They offer better image resolutions.

Complete

Restart Quiz Save Progress

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Lesson 2: Satellite Quiz

Your Grade: 100%

You've passed the quiz and can continue to the next lesson.

Continue to next lesson

Restart Quiz

2 of 3 lessons completed (0%)

- ⊗ Lesson 1: What is a small satellite?
- ⊗ **Lesson 2: Satellite Quiz**
- ⊗ Lesson 3: NASA Satellite History

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Continue to next lesson

Restart Quiz

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Lesson 3: NASA Satellite History

Video

2 of 3 lessons completed (0%)

- ⊗ Lesson 1: What is a small satellite?
- ⊗ Lesson 2: Satellite Quiz
- ⊗ **Lesson 3: NASA Satellite History**

Complete

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Course Complete!

Congratulations on finishing the course!

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Start Learning!

LearnSatEd will provide you with UGA educational content and quizzes to help you launch your satellite!

Take Course

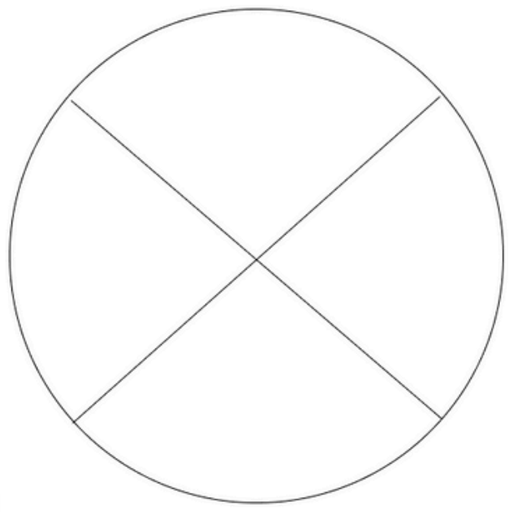
3 of 3 lessons completed (0%)

Module 1: Introduction

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LearnSat Challenge

The opportunity to have your LEARNSat venture kickstarted

Learn more

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Interest Form

Name

Email

School

Why are you interested in LearnSAT?

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Interest Form

Thank you for your interest! We will get back to you as soon as possible.

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Need to get in touch with us? You may fill out the form with your inquiry.

First Name

Last Name

Email

What can we help you with?

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Contact Us

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INSIGHTS

WHAT DID WE LEARN

- The user’s journey and flow of the site
- The layout for each landing page
- Organization of the contents on each page
- The tone of voice for the website

HOW IS IT HELPING

- Figure out the details of the website and the website’s elements, such as buttons and transitions from page to page
- Visualizing how the website will function through the receiver end

HOW WE ARE MOVING FORWARD

- We will show this to our client before finalizing the details and ensuring approval of everything.
- The UX map affects us positively because we will have a good idea of how the website should function at the end of this project. This will allow us to focus on details and the website's language.