Meet the team!

**Cecilia**
I’m a rising sophomore in English and a hobbyist illustrator, so I was drawn to the art and writing aspects of the game. I principally focused on those areas, but also learnt Figma prototyping principles. Additionally, I coordinated the promotion of playtesting.

**Alex**
I am a rising sophomore majoring in Information. I joined this project to learn how to apply UX principles to a working prototype. I worked mostly on Figma map and audio components, user error prevention, quality assurance, and accessibility.

**Shao-Chi**
I am a rising junior double-majoring in Comparative Literature and Women’s and Gender Studies. I worked on an educational video game before with Figma and joined this project to learn more about game design and different aspects of the Library and Library-related research.
Meet the team!

Our wonderful mentors

Denise

Caylen
Agenda

- Objectives and Goals
- Development
- User Testing
- Final Product
- Lessons Learned
- Next Steps
# Road Map

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<th>WEEK</th>
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<td>BENCHMARK</td>
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*ideation* refers to the brainstorming and concept development phase.

*game development* refers to the stage where the game is being built.

*testing* refers to the phase where the game is being tested for bugs and issues.

*final* refers to the completion and release phase.
Inspiration
Write a proposal for our game outlining our goals

Development
Begin creation of video game on Figma

Testing
Run and record users’ experiences playing

Prepare for Testing
Promote, schedule and plan playtesting

Analysis & Presentation
Analyze results and prepare final report and presentation

Ideation
Game Proposal

Problem Statements
Navigation between North and South buildings is complicated
Knowledge about study area locations is not widespread
Finding items within Stacks is confusing

Intended Audiences
New students
New Library staff members
Returning students unfamiliar with Hatcher

Goals
Navigation self-reliance
Entertain and educate
Increase sense of belonging
Development
Proposed Story - ‘Librarynth’

- “Reverse” Fetch Quest
- Mail-themed
- 7 destinations
- User-led paths
- Sticker system

Whiteboard from first meeting
Proposed Story - “Lost in Memories”

- Animal characters related to U-M campus
- Memory
- Family
- “Ghost” or “spirit” librarians
- Being lost in the library
- Navigating an unfamiliar space

Title: Lost in Memories

The arb squirrel came to U-M campus to visit their cousin the fancy squirrel and both of their grandma.

The fancy squirrel was running late and so the arb squirrel decided to explore the Library on their own first.

The moment the arb squirrel stepped into the lobby (either north or south hatcher) a little girl squirrel came to them and said they were lost and were looking for her dad. The arb squirrel had never been here before so he didn't know how to help her. She was upset and just ran away to find her dad on her own. She said something like “I think Dad is working somewhere somewhere and I will just go there and look for him.”

The arb squirrel was worried about her and called the fancy squirrel for help, and chased after the lost squirrel.

The adventure starts here.

So the idea of the game is that the player is the arb squirrel, and along their way chasing behind the little girl squirrel they would explore the Library building while helping out “spirit squirrels” that reside in different spaces in the building.
Final Story

- Library Worker Squirrel
- Book - Stacks Game
- Compass - North and South
- Lamp - Study spaces
- Big reveal!
We chose to use Figma because:

- We can get the educational plan for free
- One of members used it and the others wanted to learn more about it
- There are experts at the Library we can learn from
Visuals

First Design

Outfit and logo variations

Style studies for Mail Squirrel
**Visuales**

Final Mail Design

First vectors

Compass Ghost sketches
Visuals

Final Ghost Designs

Full-body Squirrel (reveal)

Ref. Room Background
Challenges and Solutions
Learning Curve

Slow Beginning
New to Figma

Steep Progress
More familiar with different Figma interactions and functions

Plateau
Learning Figma limitations
Interacting with the Physical Space
The call number of the book ghost is 808.3 B287bl

You're almost there! Each box represents a bookshelf. To find the correct shelf, **enter the stack**, find the shelf where the call number is located, tap the correct box.

**Goal: find book 839.39 W415te**

Find the column where the book is located, and **tap on the corresponding shape**.

**Hint:** the call numbers increase from left to right and from top to bottom by columns.
“On tap” became double clicks on iPad.

Found solutions on online forums.
Device Screen Sizes

- Designed for iPhone 14 Pro
- Appearance on iPhone 8
- Appearance on iPhone 11 Pro Max
Accessibility

The main limitation of Figma = No screen reader compatibility!
- No alternative text
- No focus order
Audio Instructions

MP4

Embed

MP3

Hide file
Final Product
Home Screen
Tutorial Screens
Dialogue Screens
Mini-Games

However! As a navigator, it is my duty to make sure others are informed!

So??
Have you?
Map Screens
Stack Game

But first, we need to determine what shelf he's on...
End Screen
User Testing
Methodology

- Recording and note taking: first hand observation of user reactions and behavior
- Post-test interview: general impressions and reflections
- Think Aloud Protocol: compliment the above approaches
Recruitment

Poster

Shapiro TV flyer

QR Code to Google Forms

Shapiro announcements board
Recruitment

- 55 applicants
- Seeking:
  - low-familiarity students
  - student workers
- Send email to 27 chosen applicants
- 20 scheduled test using Calendly
- 16 students tested
GoPro, iPad and Facilitation

- Facilitators took notes and asked questions when needed
- All testers wore a GoPro
- Library iPad back-up
- Unfacilitated pilot testers
Analysis and Results
Dialogue Interactions

Number of users who skipped one or more dialogue screens = 5

Reasons for skipping dialogue = “I know the information already,” “the dialogue loads too slow,” “there’s too much to read.”

Other concerns = back buttons
Navigation Comfortability Scores

Initial Comfortability Scores and Their Improvement

- **Improvement**
- **Initial score**

![Bar chart showing initial comfortability scores and their improvement for participants P1 to P16.](Image)
Stack Game Reactions

When the Participants Started Looking for the Item

- After the Tutorial: 43.8%
- During the Dialogue: 31.3%
- During the Tutorial: 25.0%
Check out and Return Comfortability

Average: 0.75
8 (50%) of the participants thought that the game didn’t really teach them about where to check out and return items and the timeline of this process.

The way we phrased the question (“checking out and returning items” instead of “finding an item in the stacks”) might have influenced their answers.
North Lobby to South Lobby

15 out of the 16 playtesters were able to recall a viable route.

12 of them recalled the 2nd floor route, 2 of them recalled the 1st floor route, and one of them recalled the 4th floor route.

It was pointed out that the game didn’t explicitly take the playtesters through a direct route.
Positive Reactions

11 out of 16 playtesters described the game as “fun”

10 of them described the visuals as “cute” or appealing

All 16 play testers said the game taught them something or (in the case of student workers) it would be a good tool for students unfamiliar with the library

Additionally, only 2 people made a mistake playing the trivia-style game
Negative Reactions

- Juvenile
  In regard to plot and visual design

- Too Short
  In regard to route and destinations

- Confusing
  In regard to map directions and finding materials to borrow
Lessons Learned
Cecilia

- How to make a fun gameplay experience
  - Reactions to story and characters
- Direct writing skills
  - Dialogue and emailing
- Vector design and cohesive graphics
  - Learning skills in Figma
Alex

- Applying UX principles to a working prototype
  - Figma software
- Prioritizing tasks and finding a flow
  - Notion
  - Intuition
- Working with a team
  - Communication
  - Trust
Shao-Chi

- Figma interactions, limitations, and troubleshooting
- Library-related research
- Interview and facilitation strategies
- Reflection on teamwork and learning styles
- Organization of tasks and benchmarks
Next Steps and The Future of Hatcher Haunts
Accessibility

- Move hosting platforms
- Customize font size and orientation settings
- Implement alternatives to “on drag” gestures
- Include Virtual options
- Introduce definitions for library terminology

Full accessibility report
Platform Change

Canvas

Apple and Android native apps
International Component

- The game explains that the Library has both academic leisure books in non-English languages and how to find them, something Intl. students said they wanted to know during a recent survey.
- We talked with people from the Language Resource Center and are exploring ways to translate the game:
  - Translate-a-thon
  - LRC Language Bank
Stakeholders

We would like to hand this project to:

- Future Library programs
- EECS classes
- WolverineSoft
- Undergraduate Research Opportunity Program (UROP)
- Living ArtsEngine or ArtsEngine
Expansion

**Routes**
- Asia Library
- North Stacks
- Shapiro Library

**Plot**
- Winter wonderland
- Final and midterms season
- International collections

**Mini-Games**
- More interaction with physical spaces
- Differing input types
Pamphlet
Acknowledgements

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Our Users
Thank you!
Any questions?

− Cecilia, Alex, Shao-Chi