August 2

📅 August 2, 2024　　👤 Andrea Torres

This is the last post. It's going to be a long one, so buckle in.

Yesterday we culminated our research with our poster presentation. It was incredible to share our research together as a team to so many people. Seeing people use our game was also fascinating; despite many people struggling with using the controls (which is a concern that we will or the team will hopefully address in the future) they still found the game engaging and fun. So at least we know that our environment is inviting and engaging for users.

After the presentation, we went out to the Peterson Pits and roasted marshmallows while finding constellations. It was a very relaxing end to the busyness of the summer.

Today we filled out a survey and had a focus group. The survey surprised me in some ways, because as we went through it, it made sense why we had the luncheon lectures, as well as the HCI and ethics sessions. I could confidently say in the survey that I had been taught a wide variety of skills.

In the focus group, we got the chance to somewhat restate what we had said in the interviews, but without the pressure to make our answers media friendly. As a result I feel like our recording did a great job of fully describing our team dynamic and our thoughts on the summer as a whole.

Now for the mushy part:

This summer has been extremely informative for me. After coming back from Spain, I was really nervous about immediately entering a job scene, but after the first week, I was already getting along with the other REU interns and excited to begin the research project for STEM XR.

Additionally, coming into this summer, I had already dismissed the idea of grad school in my mind, for a variety of reasons. As a result, when I realized this internship was centered around encouraging students to go to graduate school, I was a bit skeptical about having my opinion change. However, some new concepts about grad school were introduced to me that I had not considered or heard before, so I

am considering grad school a lot more seriously now than before. I'm open to looking at professors and their research, and I feel like I know much more now about what to look for in a grad school and PI.

I've also met such also met such amazing people here. The REU interns I worked with feel like family to me. Rodney, Alee, and I have grown very close; we get on each other's nerves like siblings but are able to put our conflicts behind us when it matters, which is really amazing. Stargazing, salsa and cumbia dancing, shrieking at horror movies and games, endless rounds of Mario kart, delicious baked goods on the weekends, kpop and 80s rock as well as many late nights chatting were things I was not anticipating would happen this summer, and I am so glad they did and with this group of people.

The grad mentors were also incredibly helpful, both for venting after long days struggling with unity, and for staying up late working on the game or revising our paper. They were also just wonderful people to hang out with 😊.

Finally, the faculty mentors were the best teachers I could have possibly asked for. I feel like I fully understand the level of quality work that needs to be executed in grad school, as well as what research is really like when working with multiple experts. I am excited to potentially continue working with them, and will definitely at least remain in contact with them after this summer.

Overall, this summer has been an incredible research experience that I am very grateful to have been given the opportunity to be a part of. My whole career trajectory and thoughts about the rest of my life have been affected by this summer, and for the better.
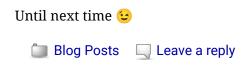
🗀 **Blog Posts** 🗩 **1 Reply**

July 31

🗓 **July 31, 2024** 👤 **Andrea Torres**

This morning we continued working on the paper. It is finally starting to shape up well, which is good since we're submitting it this afternoon.

This afternoon we're planning on working on the paper more, and possibly will work on the game a bit more, as well as practice our poster presentation.

Until next time 😉

🗀 **Blog Posts** 🗩 **Leave a reply**

July 30

🗓 **July 30, 2024** 👤 **Andrea Torres**

This morning we continued working on the paper, but we worked on it on the third floor as opposed to our usual corner because we wanted to watch the thunderstorm. Pretty much everyone else in the REU joined. It was fun to work sitting side by side with everyone since we haven't all worked in the same area for a while. After two hours of working on the paper, we went to the luncheon lecture, which was arguably one of the most interesting one's we've heard so far. The presenter was proficient in psychology and law, a fascinating combination, and she studied the criminal justice system and how it basically uses pleas for unfair negotiation. In other words, people with money and other resources can easily get out of sentences, and pleas can be offered to make someone plead guilty even if they are

innocent just so that they can avoid a harsher sentence. Overall, her talk was very engaging and interesting.

This afternoon we're going to continue working on reviewing and revising the paper o_o at least we will be done with it tomorrow afternoon though, because then we will only need to focus on practicing our pitch for the poster symposium, and maybe we'll be able to touch up the game a little. I still can't believe we're this close to being done. It's been a whirlwind of a summer, but I have had so much fun and have gained a lot of knowledge within these ten weeks that is going to play a major role in the rest of my life with regards to how I plan my career path.

Until next time 🙂

📁 **Blog Posts**　　💬 **Leave a reply**

July 29

📅 **July 29, 2024**　　👤 **Andrea Torres**

The presentations on Friday went well. I feel more prepared for the 3-minute elevator speeches on Thursday.

This morning we worked on the paper. It's slow going and less fun than making the game, but at least we can make it easier for other people to follow our process to make the game. This afternoon will be more work on the paper as well.

Until next time 🙂

📁 **Blog Posts**　　💬 **Leave a reply**

July 26

📅 **July 26, 2024**　　👤 **Andrea Torres**

This morning we practiced our presentation, so I'm feeling pretty good about it. We also are waiting on the remaining feedback from our professors on our poster. So…we really only have the paper left to work on, which is a relief after all the work we've been doing the past eight weeks. If we finish the paper early we're thinking of adding more details to the game, and we're going to practice our poster speech once we're done with the presentation. Overall, it's getting easier and easier now that we're finally able to check off the boxes on projects that seemed like they would never get done in time a couple weeks ago.

Until next time 🙂

📁 **Blog Posts**　　💬 **1 Reply**

July 23

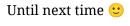📅 **July 23, 2024**　　👤 **Andrea Torres**

This morning we started laying out our final details for our game and planned out how we are going to balance our time the next few days. I worked on the paper for an hour, and am feeling pretty confident

about us finishing all of our deliverables on time. During the lunch lecture today, the speaker told us about her journey to her current position. She originally wanted to be an English as a Second Language teacher, so we spent some of our time with her discussing language and its quirks. She also gave us some tips on what conversations to have with your faculty mentor in grad school prior to starting so that you establish boundaries and have a good idea of your schedule of completing your project.

I'm still debating grad school as my next step. I keep expecting that a job opportunity will come along that will be challenging and thought provoking and doesn't require a master's degree or a phd, but I feel like I'm slowly learning that is very unlikely, even though I don't really want to go through many more years of school. I'm kind of tired already XD. I think by going through internships during grad school summers though will keep me motivated and aware of opportunities that I can take on.

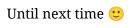That got more thoughtful than expected.

Until next time 🙂

📁 Blog Posts   💬 1 Reply

July 22

📅 July 22, 2024   👤 Andrea Torres

This morning we continued working on the presentation and poster. We met with our professors to show them the game and get more feedback, so we have a bit more of an idea of how to design and organize the poster and presentation. Hopefully we will finish both early this week so we have a good amount of time to practice.

Until next time 🙂

📁 Blog Posts   💬 1 Reply

July 19

📅 July 19, 2024   👤 Andrea Torres

Today has been a pretty productive day. We finished the basic demo scene for the game, and now we're working on the more detailed aspects of the circuit and for teaching specifically. I think we'll finish the popups today and possibly the current demonstration.

Last night we made baklava, which was delicious 🙂

Until next time.

📁 Blog Posts   💬 1 Reply

HCI Heuristics

📅 July 18, 2024   👤 Andrea Torres

Representativeness heuristic: People make assumptions about things based on how they perceive them and how those objects are presented

Design principle: Emphasis, creating a focal point of a design and ordering the rest of the elements based on importance

Application: The first thing the user will see is the circuit board, and then they will see the elements that go on it

Affect: People make choices based on their emotions at that moment.

Design principle: Learnability, how easy is it for people to learn how to use the product

Application: Make it easy for a user to undo an action, keeping the signs with instructions easily accessible after they pass through a level, (works to prevent frustration, making the user enjoy the game more)

Anchoring: Tending to be more influenced by what we learn first

Design principle: Hierarchy, guiding the users eye with the way elements are arranged (very similar to emphasis)

Application: Teach the user the simple things first as opposed to everything at once so that they remember the basic concepts of circuitry and can apply them later.

📁 **Blog Posts**   💬 **1 Reply**

July 17

📅 **July 17, 2024**   👤 **Andrea Torres**

Today started with an ethics class from Elliot, where we spoke about Theranos and Elizabeth Holmes, and whether or not she was evil…I think she was the perfect example of a lack of objectivity; I don't think she was evil. She was objective toward everything that didn't serve her goal. It honestly seems a little socio or psychopathic since she didn't care how people were affected by her project, but rather only cared about whether her product could be produced and she could become the female Steve Jobs.

We also talked about the importance of understanding both the technical and business sides of industry, if we want to go into management positions or just in general. This definitely makes me feel more strongly about getting an MBA since I think I want to go into a leadership position, although I'm not exactly sure how, where, or what I would be doing. I also think in general it's just a good idea to learn what goes on to bring a product to market, and gain a real understanding of every step, because you can work much more easily with people when you both can use the same lingo and understand each other.

After the ethics meeting, we went back to working on the project. We did another redesign where we shrunk down the game some more, so that it's easier for the users to understand what each individual component does.

Alright, I need to get back to work, so

Until next time 🙂

📁 **Blog Posts**   💬 **1 Reply**

July 16

Today we did our first run through of our project presentation. As always there were a lot of changes that we needed to implement, but I feel like I learned a lot not only from the critiques on our presentation but also from the other presentations everyone else gave. So it was a productive session.
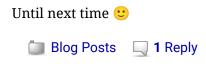
Afterward we had the lunch and lecture with Alex, and he told us about his journey to where he is now, and gave us advice on how to think about grad school and careers. I feel like a lot of this has to do with finding what you value in life and making your job align with that. I am definitely going to be more purposeful and specific about finding what I enjoy and dislike in the jobs that I do so that I can better identify what I would like to have in my future career.

Until next time 🙂

📁 **Blog Posts**　💬 **1** Reply

July 15

Today we started working on the presentation. We're organizing our lit review and working on continuing with the code. So far I'm feeling pretty calm about the project, since we made some decent progress this weekend. I'm more concerned about the presentation aspects, since we have a lot of writing and work to do presentation-wise and I'd rather just focus on the actual game. However, I know it's necessary to get the written work done early so that we aren't suffering next week.

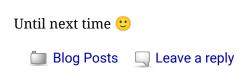Until next time 🙂

📁 **Blog Posts**　💬 **1** Reply

July 12

Today had a lot more visual progress than the past few days this week. We finally got a repository working, so we were all three working side by side on the project. We now have functional hands, teleportation, and continuous motion!!! Alee was able to import the scene, Rodney's progressing the code…it's been a good morning.

This afternoon we're continuing our progress, and hopefully Alee and I will move onto the coding portion.

Until next time 🙂

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July 11

Today started with continuing working in Unity on the teleportation and continuous motion aspects of our game. I'm hesitant to use the code from the deeper dive here since we switched the hand visuals and the tracking is a bit different, but a different tutorial I tried is not working, so I'm going to ask for help this afternoon to continue moving forward.

At 10 we had our HCI meeting, where we learned about the decision making process, and how it does not always involve differentiating between pros and cons. After HCI, we had our lunch and lecture, where we learned about digital twins, neural networks, and the possibility of creating an AI software for manufacturing.

Overall, it's been a good day so far.

Until next time 🙂

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July 10

📅 July 10, 2024   👤 Andrea Torres

Sorry for not posting yesterday; there were a lot of changes and updates to our game plan that we had to figure out. Today has been a little bit better, so *yay*

Yesterday we had an ethics class with Elliot where we learned about the importance of being as objective as possible when working with ethical dilemmas. Ethics is definitely a strange concept. I enjoy discussing it but it sometimes feels like the discussion issues can't be resolved since there is no true right answer. I am excited to talk about Theranos and Elizabeth Holmes at the next meeting though; I learned about Theranos in high school and thought the scandal was fascinating, so I'm happy to have an excuse to watch documentaries and videos on the topic.

After Ethics, we had a lunch lecture with Merate, and she taught us about how she started doing research, while also explaining some of the research projects that she has taken part in. I thought her explanation about sound and the importance of having the different types of sound in mind while designing architecture was fascinating; I had always just assumed that it was unavoidable in cities to have a general loud din, and I had never considered how that could endanger people.

After lunch, we had our meeting with the STEMXR team, and they gave us some pointers on how to redesign our game. To make the design process easier as we continue designing the game, we are going to be using data structures and object oriented programming in our code. This was a little bit overwhelming for me, since I have never worked with either before, and with the short amount of time to learn feels like a lot, but I'm trying to remember exactly that: it's a time crunch, so we will only be cramming knowledge and frantically applying everything we learn for a little bit of time.

We finished the day with Five Guys in the lab, and I started learning how to use the command prompt with git commands to try and move the code that we'd used for the deeper dive VR game into our new git repository. It didn't work…but today…

We started today still struggling with moving all the code over. We tried for a couple of hours, and since it wasn't working, decided to work from scratch and remember what we had done this time around. This

worked out!! We got the hand tracking working in a much more complex way than before, allowing us to actually move individual fingers as opposed to just having balls for hands.

This afternoon I'm going to work with the EEG group, which I'm super excited about, and then I will come back in the evening to continue working on the teleport and other locomotion details that we will need to accompany our data structures and oop code that Alee and Rodney are working on.

Until next time 🙂

📁 Blog Posts   💬 1 Reply

Group Presentation Questions

📅 July 8, 2024   👤 Andrea Torres

1. CommHeat: What apps did you look at while choosing a design for your app, and which one did you like the most or had the best reviews?
2. CuriosityEEG: What other applications do you see potentially coming about after syncing an EEG to a VR headset (aside from or going further into measuring curiosity)?

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July 8

📅 July 8, 2024   👤 Andrea Torres

Today has been pretty productive so far. We've decided on our game design and have storyboarded the first scene. Now we just have to assign tasks and begin! It's a little stressful now since we have to work on a paper, a poster, and a presentation at the same time as making the game, but I know that with enough planning this will all work out. It's just crunch time now.

This weekend was very relaxing. We went and saw inside out, we went to watch the fireworks, we played video games, and I went to the music building multiple times 😊.

Until next time!

📁 Blog Posts   💬 1 Reply

July 2nd

📅 July 2, 2024   👤 Andrea Torres

Today we had an hour before our HCI discussion. During that hour I started working on inputting the birds into our game so that we can have their birdsongs coming from them.
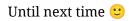
During our HCI discussion, we learned about the the importance of creating interfaces that account for user error as well as how different people think. It was fascinating to see, because it's always talked about how older people are worse with technology, when really the technology isn't developed with them in mind.

The lunch lecture today was from Dr. Zarecor, one of the faculty members on the STEM XR team. She told us about her journey to working in the position she holds now and about the research she is

conducting currently with rural Iowa. It was interesting to hear her take on growth in rural Iowa: my mom's side of the family is from a rural town, and so I grew up visiting there and have seen it go into worse and worse disrepair, similar to much of rural Iowa. She said that the key part of making more people want to stay is by improving the town's quality of life by increasing bridging social capital, either between immigrants migrating to small towns and the current residents, or between similar small towns in close proximity to each other. I agree that this is key, but I'm not sure what will encourage the residents to attempt to bridge relationships, since from what I've seen they'd rather watch their small town die with them then bridge relationships with people outside of their town. But that's my own biased experience. I definitely think there is potential, and that not every small town is the same, but it is hard to picture a change in attitude in rural Iowa towns.

This afternoon we're going to present our topic to the faculty, and we'll hopefully leave the meeting with a final decision so that we can finally begin work on the app. However, that work will not start until after deep dive presentations tomorrow; tonight is for finishing the deep dive app.

That was a lot more writing than I expected XD

Until next time 🙂

📁 **Blog Posts**   💬 **1 Reply**

HCI Car Phone Interface

📅 **July 1, 2024**   👤 **Andrea Torres**

Research question: Do people get less distracted while driving while using the hands-free setting to talk on the phone as opposed to holding their phone in their hand?

Variables:

Independent variable: Whether the person is using the hands-free setting or holding their phone in their hand

Dependent variable: Number of cars people count as being around them on the road, speed of the car, and turn signal usage.

What I'll do:

The plan is to use a driving simulation that will allow the user to be able to check their mirrors to see cars around them. The participant will need to count the number of cars that are on the road while answering a series of questions about themselves and while obeying the rules of the road: turning on their turn signal when turning and going the speed limit. There will be five short and simple questions, and five more complex questions to mimic the complexity of a conversation.

The same group of people will be tested over three days. The first day they will drive without talking on the phone. The second day they will drive while having their phone in their hand, and the third day they will drive using a hands-free mode.

Measurements:

The participants' level of distractedness will be determined by how many cars they identified around them, whether they went the speed limit (+/- 5), and whether they used their turn signal for each turn. If

participants are unable to do at least one of the three completely accurately, they are distracted.

Hypothesis:

I believe that the participants will be more distracted while holding their phone in their hand because there is the additional stimuli of needing to hold an object that has nothing to do with driving, whereas while using the hands-free mode there is no additional tactile stimulation.

If it is proven that participants are more distracted while holding their phone, my future work will test if this is the cause of the heightened distraction.

📁 **Blog Posts**   💬 **1 Reply**

The first of July

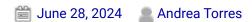📅 **July 1, 2024**   👤 **Andrea Torres**

Today has been a pretty good day. We started off by continuing working on our deeper dives; the presentation is Wednesday so I'm a bit apprehensive about that since we have to still finish the game and the presentation by then and we're still not done with either. This afternoon we'll hopefully finish or get really close to finishing the game, so that tomorrow and Wednesday we can just focus on the presentation. It's looking good so far.

Kate gave us some really good input on how to design the research presentation; I feel like her information is going to carry well to the final presentation we're going to have to give at the end of the summer.

That's it for now 🙂

Until next time.

📁 **Blog Posts**   💬 **1 Reply**

6.28.24

📅 **June 28, 2024**   👤 **Andrea Torres**

This morning we worked more on the deeper dives. I am almost done perfecting the teleportation aspect of our game, which is exciting, because that means I can finally move on to the animal sounds and assets. Not much else has happened today.

We finally had a little bit of a break last night on the STEM XR project, since the grad mentors told us to put a hold on our game idea development. It was nice to relax a little bit after working really hard to develop our ideas the past few weeks. We're crossing our fingers so that the faculty end up choosing one of the topics we liked the most.

Until next time 🙂

📁 **Blog Posts**   💬 **1 Reply**

6.27.24

Today we had two talks from Stephen: the first one was about how to properly design an experiment and the issues that can easily arise that can end up swaying data before, during, and after conducting research. During his lunch lecture, he talked about some of the other projects he has worked on, such as developing a simulation to see whether visual or audible signage worked better for evacuating a school when there is a school shooter. I was surprised that the audible signage was better, but it was cool to learn more about how people's brains work so that audible noises are easier to process.

He also talked about the importance of taking advantage of opportunities and networking, as well as asking for strong letters of recommendation to ensure that no one writes you a bad letter. He spent some time talking about his time in Namibia as well, which was fascinating. It was interesting to learn about the history of Namibia as well as the rains and wildlife.

For the rest of the day I'm planning on doing some deeper dive work as well as start on the research paper for STEM XR.

Until next time 🙂

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Post Storm Lake

Yesterday we went to Storm Lake. We met some of the students that we are designing the application for, and we met with one teacher. Our interview with the teacher was incredible: she was a high school science teacher, but she had worked in the middle school as well at Storm Lake, so she knew about how teaching methods changed between the two levels and had many opinions about how to best engage students in the classroom. She also told us about the pros and cons of integrative learning, so we have a better idea of what kind of teaching style we should use in our game.

Working with the students was also really helpful. We learned about their previous game experience and their thoughts on Science and Math. We also learned a little bit about what activities with 4-H were like, and it seemed like 4-H gave them a lot of unique experiences, like going to Washington D.C.

Overall, the entire interaction was super helpful and enlightening, and I feel like we have a much better understanding of who we are designing our application for.

In other news, today we continued working on our deeper dives. This morning the VR team literally only worked on getting teleportation to work; there were so many issues, so it took SUUUPER long. The feeling of accomplishment at the end was very worth it though.

Technically we only have three days left for the deeper dive, which is crazy since we have so much to do, but I think we'll be able to finish still.
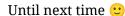
Until next time 🙂

🗄 **Blog Posts**   💬 **Leave a reply**

6.25.24

Today we had Craft of Research, and we learned about plagiarism and how to avoid it. I had always wondered about how to cite a citation that another paper had used, so it was nice to learn how to do that properly.

We had our lunch and learn with a previous REU student. She walked us through the presentation she gave when she was in the program, explained her journey of how she got to the career she is in today, and gave us some insight on what to expect and how to deal with failure in these next few weeks. It was nice to hear from someone who has experienced essentially the exact same things we have and to see how this program changed her life. I think she was the first one of the presenters who we've had that actually went into a field that directly related to her major, so it was nice to see that it's possible to directly follow a track through graduate school as well as branch out.

I'm excited about this afternoon because the STEM XR group is going to Storm Lake to spend time with the students and get some of their insight on STEM and how they like to learn. We're going to finally see Storm Lake after talking so much about it. I'm a little bit nervous about interacting with the students, but Meskwaki went really well so I'm hoping that this will too. Also, since we're going to be working together with the students as a group as opposed to individually working with separate groups of students, I think the conversations are going to be a bit easier.

Until next time 🙂

📁 **Blog Posts**   💬 **1 Reply**

Week 5, Day 1

I cannot believe we are halfway through this program! It's going by so fast.

Today we did some more work on our deeper dives. We established our problem statement and are going to begin working on designing the application in Unity this afternoon. Coming up with a problem statement has been a bit difficult, since we originally just came up with the idea for fun, but an app can't be created just because it seems fun. Right now we're saying that our hiking simulator will allow for participants to be educated on what kinds of plants and animals the participants could expect to encounter while hiking, since the studies we have read don't mention making a game to get participants involved in the VR environment.

That was extremely wordy.

Basically, we just want to see if engaging the participants more in the environment will make their well-being afterward improve even more.

Anyway, this weekend was fun. We went and got breakfast on Saturday, and then went to the water park and floated down some very fast slides.

Until next time 🙂

6/21/24

📅 June 21, 2024 👤 Andrea Torres

Since I didn't post yesterday, here's a little recap:

Yesterday the STEM XR team went to Meskwaki, an indigenous settlement about an hour from Ames to observe the digital literacy of second through fourth grade students, and to see how they received STEM topics. We taught them how to use Sphero Bots, and all the teams were very engaged throughout the entire time, despite being younger students. My group was super excited to try switching up the bot's speed and time that it was running to see what would happen, and other groups made really cool obstacle courses for their bots. Overall, it was a very fun and productive day. (And we went and got smoothies after :))

Today has been fun so far as well. We started off by going into our deeper dive groups. I got the VR deep dive (yay!), and in our first meeting today we learned a little bit more about the definitions of VR, AR, MR, and XR, as well as the differences between external and internal types of Head Mounted Displays (HMDs). We also started brainstorming a "why" for our topic decision for the deep dive. We chose to create a VR game to teach people how to be safe while hiking, i.e., what plants are edible, what to wear before hiking, what animals are safe, etc., but right now we're trying to justify that this app is necessary or could actually be helpful.

Tomorrow we're actually going hiking, so maybe we can take some inspiration from the hike tomorrow for our app.

That's all I've got for today so far! Until next time 🙂

June 19th

📅 June 19, 2024 👤 Andrea Torres

Today we continued working with Unity. It's a little bit more difficult now because we're learning a lot quickly and I don't feel like I understand all the coding commands for C#. We have our last unit today though, and I'm going to watch some tutorial videos, so I think it will eventually get easier.

On a better note, our team presentation yesterday went well, and the dance workout we did yesterday evening was very fun. I hope we do another activity like that soon.

Until next time 🙂

Day 2 Week 4

📅 June 18, 2024 👤 Andrea Torres

Today we had our last Craft of Research meeting, and we learned about how to create the Methods, Results, and Discussion sections in a research paper. We also learned a little bit about what Yvonne is studying, which has to do with how people respond to AI depending on the AI's perceived warmth and competence. It was very intriguing to see how different physical and non-physical characteristics of the robot examples she showed us changed people's perceptions of the robots.
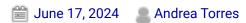
We also had our lunch lecture with Elliot today. We learned about how he ended up working at VRAC, and how his path was in no way linear and continues to be varied; he doesn't just work on the exact same thing 9-5 every day. It was nice to see that your major doesn't have to define exactly what you do when you leave college and that it's okay to change what you're studying or learn about things unrelated to your major. It also opened my eyes to the importance of doing research on multiple different career trajectories. I had only ever really thought about following BioMed or whatever major I chose and do some career directly in that field, but now I feel like it's possible to hypothetically plan for multiple outcomes that don't only involve BioMed jobs, or that align more with what I want from a career.

Overall, today was a very enlightening day so far, I'm nervous about a presentation our team is giving later, and I'm excited about doing a dance workout with everyone tonight 🙂

Until next time 🙂

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Unity Day 1

📅 June 17, 2024   👤 Andrea Torres

We started learning Unity today, and it's a little bit easier than Blender. Either that or I've just gotten used to the trials and tribulations of modeling.

I learned how to use the bloom function to add a glow to objects, but this afternoon I'm going to work on adding lighting, since I'm working on creating an in-ground pool.

Side note: The Mongolian beef at the cafeteria was really good 😊

Until next time!

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Difficult Interfaces Blog

📅 June 14, 2024   👤 Andrea Torres

We were asked to identify two types of interfaces (such as a physical object or computer software/website) that are difficult to use.

My first idea was a nail clipper, since sometimes it's difficult to get a precise cut or squeeze the clippers when you're using your non-dominant hand. Behold, the electric nail clipper. It is formed the exact same way, but it is electronic, so all you need to do is position the clipper where you want it and press a button to cut your nails.

The second interface that is difficult to use are computer mice. Sometimes when moving your cursor, you have to lift up the mouse in order to continue. *Fanfare* an extra button! All you will have to do

when you run out of space is direct the mouse in the direction of where you would like the cursor to move and click the extra button — voila, your cursor will move without you having to lift up your mouse.
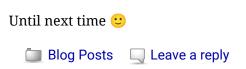
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Water tower blog
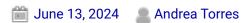
📅 **June 14, 2024**   👤 **Andrea Torres**

We're blogging outside under the water tower today.

This morning we worked more on our blender projects. Blender is a very fun software, but it's a bit difficult to use. I learn something new every session though, so I think it just has a steep learning curve. It's interesting to see what everyone else is designing for their projects; no two people are designing the same thing.
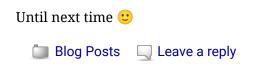
Until next time 🙂

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Thursday Blog Post

📅 **June 13, 2024**   👤 **Andrea Torres**

This morning I did some more work on Blender; it's a bit harder to use the software than I expected, so I think I'm going to watch some videos on it this afternoon since we have more time. After having some free time to do work this morning, we had a meeting about conferences, and learned how to get funding and what different types of conferences are like. Some conferences change location from year to year (US vs outside of the US), and apparently one year researchers at ISU went to a conference in Tokyo!

For the lunch and learn Dr. Carmen Gomez came in and spoke to us about her research on making improved sensors to ensure high food quality to reduce food waste. She also told us a little bit about the process of getting a PhD.

Until next time 🙂

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Blog Post Wednesday

📅 **June 12, 2024**   👤 **Andrea Torres**

We learned Blender today, a 3D modeling software with a lot more freedom than Solid Works. This week we're designing a virtual environment that will eventually work with Unity. It's really exciting to finally be so close to learning the software we will be using in our actual applications.

The STEMXR team also met with two students from Storm Lake today, so we got to receive a bit more of an inside look on what life at Storm Lake is like, some inside jokes, and what Storm Lake students want to see in the app.

Overall, it was a good day 🙂

Until next time.

Day 13 (or 15, depending on how we're counting)

📅 **June 11, 2024**   👤 **Andrea Torres**

Yesterday we learned SolidWorks, and after starting the day learning how to use it, we finished designing products while only using drawings as references.

Today we continued learning about the research process, and learned about how to write a research paper. While in class we learned about IMRD (Introduction, Methods, Results, and Discussion), ResearchRabbit, which is an awesome research resource that finds relevant articles with only a few keywords.

We also had a cool talk during lunch where we learned about a research project developed to study cybersickness, why it occurs, and how to prevent it or reduce it.

Overall, it's been a good day so far :).

Until next time!

Day 11

📅 **June 7, 2024**   👤 **Andrea Torres**

We went to an art festival yesterday, and I found a Spanish fan, a Spanish board game, and British custard! After the festival we went to Buffalo Wild Wings. Today we learned our last lesson of C++ and ate lunch with Nick, our programming teacher.

Tomorrow we're going to a ropes course, which I'm excited about since I haven't been to a ropes course in a while.

Ambrosia Ready to Eat **Custard**

NET WT 14.1 OZ (400g)

Am... Crea... **Rice Pu...**

NET WT 14.1 OZ

DEVON CUSTARD
$5.00

ACK
E

RICE PUDD...
$5.00

Day 10

📅 June 6, 2024   👤 Andrea Torres

Last evening the STEM XR team went out for boba and met Anjali's dog. Her dog was adorable and the boba was delicious!! Then Alee and I went rock climbing, which shredded my hands and made us feel like blobs afterward, but we're going back again on Friday.

Today we took our group photo (which basically turned into a 2-hour-long photo shoot), had a really awesome lunch n learn with Wes Leffers where we learned about the stiffness of the aorta and how it affects blood flow to the brain. We also heard about his hiking stories in Nepal, and were all gobsmacked when he said he wasn't from New Zealand after presenting the whole time in a New Zealander accent.

Overall, today has been fun!

Until next time 🙂

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Day 9 Blog

📅 June 5, 2024   👤 Andrea Torres

Today we studied more C++; it was a bit more difficult today, but overall it wasn't too bad. The STEM XR team met yesterday and we're going to be going on a "road trip" next week to see small rural communities and understand their social and cultural norms. This week and weekend I'm planning on looking over more of the materials from the previous work the team has done with the Storm Lake school and also looking for information on what the first subject we cover in our application should be.

Until next time 🙂

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Day 8 Blog

📅 **June 4, 2024**   👤 **Andrea Torres**

We started the day learning about research strategies from Yvonne, and then we had a lunch n learn with James Oliver. He told us the importance of underselling and overperforming, as well as knowing that imposter syndrome will always be present but that we should not listen to it. Our team had to read two papers that we're going to discuss in our team meeting today, and then we're going to see the gym, which has a rock climbing wall and dance classes!!

Until next time 🙂

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Week 1 Summary

📅 **June 3, 2024**   👤 **Andrea Torres**

After arriving to Iowa, a short, quick week of activities began. We learned the premise of each research project and received a more in depth description of our own projects. I'm really excited to begin working with the students at Storm Lake and learning more about what STEM careers might be most interesting to them. I'm also eager to begin working on developing a VR app for the project since I've never worked with Unity before and had never thought about creating a virtual application before.

Aside from the projects, we went to an escape room on Saturday, which we managed to escape with *technically* only one real clue, and we also had our own pizza party.

Today we worked on C++, which turned out not to be too bad :).

Until next time!

– Andrea

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