



Final Reflection



August 4, 2023



Andric Brena

I'm always surprised by how many times I can survive a day without ever letting myself go through a nervous breakdown. The symposium was an amazing experience. Even though I almost never knew what I was saying, I still tried my hardest alongside Kris and Curtis to present our research and to answer questions people had. Some even tested our text-based prototype, and simply hearing them laugh as they read through it was enough to fill me with joy. I've never written a story before, so I'm glad people were able to have some fun with it. I know some have said I did a good job at speaking, but I guess I'm just too hard on myself, not wanting to let myself be limited by any struggle. Nonetheless, the one thing that I'll take away from this experience is the fact that I wasn't alone. I saw almost everyone from VRAC come down to see us. Even those on slack who couldn't make it still felt like they were here. I'm glad Jorge, Hila, and Ani were able to come as well to see all the hard work we did together as a team. Most of all, I had the other 8 interns by my side. Their presence alone was enough to make me feel like I belong.

I have to admit. The interviews where we recap our experiences were the one thing that prevented me from accepting the program invitation right away, but I somehow managed to do it. After learning that there was a teleprompter, I quickly wrote a script of what I wanted to say. It made the first interview very doable; though, at first I couldn't help but notice the camera to the side revealing my face. I realize I tend to smile a lot, so much so that I try to hide it, but I smile too spontaneously that it feels hopeless to control it. In the end, I know it's just me naturally finding some joy out of anything and maintaining the positive attitude that my aunt has always taught me. Then came the second interview. I

was not expecting a group interview, so I was completely lost at what was about to happen as I kicked my legs back and forth waiting in my chair for Curtis and Kris to come in. I felt like an actor wearing fancy clothes in a Youtube video, talking about their experiences on set while sitting next to their peers. As Paul worked on getting everything set up, Curtis and Kris began talking, joking about how we should introduce ourselves and what we should say about each other. Just hearing their voices made me happy and gave me the chance to relax a bit. Still, I don't really know what I said, but I know it was not what I wanted to say, so I'll end my blog by writing to you two.

Curtis, I admire your confidence and the joy you gain from talking to people. You're a natural talent when it comes to presenting, and when tasks come your way, you're determined to get it done as soon as possible. I'll always value how you remain true to yourself and how you don't let anything stop you from enjoying life to the fullest. But most of all, I appreciate your deep consideration for others. If it wasn't for you, I may not have experienced a summer as memorable and as welcoming as this one. Thank you for also being "my partner in crime" and taking me to experience a whole new side of life, and thank you for acknowledging any concerns Kris and I may have had. I'm glad you were a part of our team as you not only cared for us but also pushed us out of our comfort zones. (also... I always found your eye rolls funny when I said something dumb... on purpose lol)

Kris, you're a fantastic, resourceful artist with the ability to turn any kind of imagination into reality. You are kind, empathetic, and thoughtful, and your laugh is so infectious, that it immediately fills my heart with joy. I'm inspired by your ability to remain strong through obstacles, and above all, I'm thankful to have had someone as caring as you. I really appreciate all the times you asked me if I was doing okay, and yes, I'll always say that I am okay even if it may not be true, but the simple fact that you asked was enough to make me feel validated. You're charismatic and vibrant, and I'll always remember all the small things we did to have some fun during work, whether it be discussing the logo for our game, watching a random funny YouTube video in sign language, translating words from several languages back to English, or even reading through a dissertation paper. Also, I'm glad you have someone like Jake. He makes you happy, and if you're happy, I'm happy.

I'll miss you both dearly and everyone else that I was fortunate enough to meet.

I'll forever cherish my time here.



0



0



0



0



0



0

[Uncategorized](#)[Leave a reply](#)[Edit](#)

Halfway through week 10

[August 4, 2023](#)[Andric Brena](#)

I find writing to be one of the hardest things as coming up with the first sentence for an essay or a blog can take me hours. Because of that, working on our research paper was a real challenge for me, but I had Curtis and Kris. They were able to synthesize their thoughts well onto paper, and using them as inspiration, I was able to write paragraphs for sections such as the introduction and discussion and offer suggestions on how to better reword other areas. I'm always amazed by whatever I end up writing as I can never imagine myself being able to speak like that.

For our last luncheon lecture we had Saeed Arabi. I enjoyed hearing about his journey after graduate school where he went into the industry and was able to co-found the company Salin247. As of now, I don't really have plans of starting my own business, but I'll still take away the things Saeed listed as being vital to starting a company such as critical thinking, being resilient and determined, and having team cooperation skills. Afterwards there was a discussion on what our favorite movie is and what that says about ourselves. I said I really like Toy Story, especially the third one, but I couldn't think of words to answer what that says about me. I guess I really resonate with the fun, playful atmosphere and the strong sense of family. I know people can come and go, but as long as I can remember, I'll always have them close.



0



0



0



0



0



0

[Uncategorized](#)[Leave a reply](#)[Edit](#)

Week 9 Reflection

[August 4, 2023](#)[Andric Brena](#)

We spent much of our time working on our posters. We gained valuable feedback after presenting our progress so far on Tuesday and even more when we met with Kimberly on Thursday. The whole process of crafting our poster reminded me of our team building activities in June and when we first started building the narrative for our game. That's because I didn't shy away from suggesting a whole bunch of small ideas for our poster's design, and by sharing, Curtis and Kris were able to provide feedback as well, further developing our ideas on how we can best represent our research. Also, I realized I may have become like my mom when working on the poster as she is very much a perfectionist and is analytical about every small thing she does.

For luncheon lectures, we had Elena Cotos and Wesley Lefferts. I found Elena's presentation to be very insightful as it provided guiding tips when applying for graduate school while also detailing various programs at ISU meant to help during one's graduate study. I really enjoyed Wesley's presentation as well since it reminded me of how much fun I had when taking my human anatomy and physiology class in high school. There was a discussion afterwards about social media and content creation, and when asked to raise our hands if we thought Tik Tok is a good thing, well I did think about raising my hand but didn't do it since I didn't feel too informed about the topic. In my head, my thought process was simply: I have fun watching videos on Tik Tok, and fun is good, so Tik Tok is good.

Apart from work, we all also went to the movie theater and the water park. I always like going to movie theaters mostly because I like eating popcorn. As we waited for fresh popcorn, I walked over to the small lounge containing a small tv and some chairs. I became completely engrossed by whatever it was that was playing on the tv. Nadya found it funny since I was just standing there staring up close at gruesome scenes of prehistoric creatures eating each other alive. We then watched the Barbie movie which I found to be very entertaining; I didn't expect the narrative to go that deep. At the water park, we spent some time at the pool. Because I felt a little cold, I was mostly doing short hops in the water as I listened to everyone talk. Rebekah said we all looked like "wet dogs" which I found to be funny. While interesting conversations were occurring under the tent later on, I found myself enthralled by a gyroscope that Kris gave to me to play with. There was also a large army of ants nearby. They seemed to have been carrying some white stuff back to a hole in the pavement. Amongst them was a strange ant that was larger than the rest and continually kept trying to climb my leg so yeah that guy eventually got flicked off somewhere.



0



0



0



0



0



0

[Uncategorized](#)[Leave a reply](#)[Edit](#)

A tip from Alex

[August 4, 2023](#)[Andric Brena](#)

I always ride my bike to VRAC from the apartment, so one day Alex came up to me and Ayman before we headed back home and shared with us info about a secret shortcut through a metal tunnel. I wasn't quite sure where it was located, but I had keywords such as railroad, parking lot, cemetery, printing services, and metals development from Alex's description. With that in mind, I convinced Ayman to go find this tunnel, stopping first by the cemetery then the metals department building before finally going to the nearby parking lot where we found the printing services. At this point, we were lost again as we saw nothing but parked cars. However, a random biker suddenly appeared in the distance amongst the cars before disappearing behind the printing services building. I hurriedly drove to the corner of the building where I caught a glimpse of them entering a dark hole on the side of a small hill. Considering the metal exterior of the hole and the railroad track above it, I realized this was the tunnel Alex mentioned. After ducking my head and going through the tunnel on my bike, I was surprised to see how close we got to the apartments. I then happily shared what Alex told us with Curtis and Tim who tried it the next day. Some may say it's not really a shortcut, but at least I can avoid driving along the sidewalk of the busy roads which to me is good enough (plus I find the path to be really cool).



0



0



0



0



0



0

[Uncategorized](#)[Leave a reply](#)[Edit](#)

Week 8 Reflection

[July 23, 2023](#)[Andric Brena](#)

On Monday, I continued to work on finalizing the dialogue and implementing the battle system into our text-based prototype. Kris and Curtis kept wanting to try it out, but my

response was still “soon” since I wanted to finish it first. Meanwhile, they did a great job at creating our slideshow presentation for tomorrow’s visit to Storm Lake and starting an outline for our presentation to CUNY on Wednesday. After I made a couple of changes to the slides, we were all set and ready for the trip tomorrow, and like I said, they soon got to play through the prototype. I had a lot of fun just watching them laugh at the conversations, die in-game, and try to figure out in real-time how to win. It reassured me that the students tomorrow would at least be able to find some enjoyment from the prototype.

The ride to Storm Lake was a long one, so I used the time to practice in my head what I planned on saying because I somehow accepted doing the presentation slides (...I secretly wanted to do it though as a challenge). At one point, we saw a crop duster, and I thought we were done for because it was heading straight for us. But, it flew right above the car, so it was all good. Once there, we began setting up the laptops, the materials for the brainstorm session, and the slideshow presentation. I can’t believe I actually managed to present the whole thing. I talked about who we were, what an REU program is, and the agenda for today’s workshop. Ezequiel then helped in doing an ice breaker by asking each student to say their name, their grade, and their favorite game. Afterwards, they started playing through the prototype. Again, just like with Kris and Curtis, I had too much fun seeing everyone’s reactions as they played through it. I would walk around and offer hints and guidance whenever I saw someone get stuck in battle. I had even found the courage to speak to someone in Spanish to better help them understand what to do for a cybersecurity puzzle (again that sense of liberation showed up for some reason). I know Kris has made it a summer goal to take a picture of me smiling since I would always hide it the moment the camera came out (I miss wearing masks) and she may not believe me, but I saw the phone and still let her take the picture that may end up on our poster. I guess at that point I had too much joy that any worry I had seemingly disappeared. After they finished playing through the prototype and completed the post-game survey, we all got food as we sat down for the focus group interview, which I recorded using my phone. I was tasked with directing the group of students who are either about to go to college for the first time this fall or have experience already in college. Again, I can’t believe I actually managed to run a whole focus group. I had a script to help me guide the conversation and ask certain questions, but I also tried to create my own follow-up questions based on what everyone had said (I’ve never asked so many questions before in a short period of time omg). I also shared some of my experiences with them as I realized they were pretty similar, and considering I’ve been in my undergraduate program for three years, I also

shared some advice to coincide with what they believe is important to succeed in college. Overall, I think I didn't do so bad for my first time, and it didn't feel too hard either because it actually felt like all the times I sat eating dinner with my cousins who are around the same age as me whether here or in Peru. Because of the deeply insightful discussion, my group ran out of time to delve into the creative brainstorm activity, but overall, I think we each had a really good experience. I'm glad we were all able to meet the Storm Lake students and run the event well, which will serve as valuable research for our poster and paper. Again, I found it sad to say goodbye, but at least I can still remember those I've met (I wonder what the last day of the program will be like...).

For the rest of the week, we focused on analyzing the data by highlighting common themes in the focus group transcripts and survey responses. We did this by using the site Taguette and creating a codebook using Google sheets. We also began working through our poster now that we had much of our research. Based on everything we did, I felt that the typical poster layout didn't quite suit our design research project and that implementing a flow chart could better represent our work. Our grad student mentors agreed, so we've been working hard at creating a semi-traditional poster which I think looks great so far.

Besides our research project, we gave a presentation to CUNY students about the work we've done so far. I may have spoken a little bit too much, but that's ok though since we all still did a good job and it will serve as valuable experience for future presentations. We then heard from the CUNY students and their research projects the following day. The ones that grabbed my attention the most were Filip's research on creating a driving simulation for those with ADHD and Habin's research on constructing Unity toolkits for artists to create and show their work in a virtual environment. For luncheon lectures this week, we had Holly Oberbroeckling who was once an REU intern at VRAC just like us. I appreciated how she presented her REU research project to give an idea for what it would look like when we begin presenting ours. We also had Beiwen Li talk, and I greatly value the knowledge he shared regarding whether one should go into a PhD. He took us through a decision tree where he asked us three main questions: do you care about getting money right away, care about being judged, and care about receiving immediate reward from your work? Since I answered 'no' to all three, I guess going into a PhD program could be an option for me, but I'll think about that when the time comes.



0



0



0



0



0



0

[Uncategorized](#)[1 Reply](#)[Edit](#)

Even more fun activities

[July 23, 2023](#)[Andric Brena](#)

On Wednesday, I had the opportunity to participate in the prototype testing for Nadya, Ayman, and Allison's research project. I got sent into a virtual room where I was met with two avatars. There, I used my voice and talked with both of them, asking about who they are, their research area, and their plans for the future. I then completed an extensive Qualtrics survey. I found the whole thing to be an amazing experience. Looking back, it may not have been ideal for me to have signed up, but I'm glad I managed to push through, helping the group discover bugs, gain data on a potential user's experience, and gather insights on which interfaces work best for user interaction. They're doing an incredible job, and I'm happy to have been able to witness all of the hard work they put in these past weeks. I can't wait to hear more about their project as we approach the end of the program.

On Thursday, I somehow found myself in a concert. It was in Des Moines and held outside in an open field where a band played country music to a large crowd. It was my first time ever going to a concert, but at least I had Curtis, and a chair to sit on, and comfy clothes, and wind, and clouds, and a drifting mind, and no care about my leg or hands, and we sat in the back, and everyone around us stayed in their chairs rather than stand and dance, so in the end, I think it was a fun experience. As I listened to the music, I noticed a couple in the far distance slow-dancing together. They reminded me of my grandmother and how happy she looks whenever she is dancing with my step-grandfather. I also saw someone up ahead, swaying to the sound of the beat as though her spirit was in a place of pure joy and comfort. She reminded me of my aunt who loves to dance, so much so that it feels like there is always a new video of her dancing to salsa music on Tiktok. I even saw some children having a lot of fun. They reminded me of my younger cousins, with whom I would run around and play as though I was still 8. Everyone seemed to have enjoyed their time there, including Curtis who told me it was his first time at a concert too, and if they all had fun, then so did I.

Also, at one point, as we were walking to the concert, a guy dropped something next to me, saying “my bad” and telling me to try it. I had no clue what was happening, but Curtis noticed and started doing all the talking while I continued to hide my face behind the chair I was carrying. I know better not to, but imagine if Curtis turned around later instead and saw me vaping for the first time. That would have been kind of funny.

Finally, on Saturday, we took a trip to the water park. The idea to go came up on Friday after work, so I find it funny how, upon waking up Saturday morning, Ayman and I decided to go eat at Season’s Marketplace for brunch; because to me, it felt like an escape plan to avoid going to the park (shhh). But, as soon as we were about to head out, I began hearing knocks on the front door, and turns out, it was Kris, Rebekah, and Nadya asking us *enthusiastically* to go to the water park with them. I actually wanted to go too, so I’m glad they came to give us that extra push. Once there, we found a really good spot just for us where there were lots of chairs under a tent. We then went on the lazy river a couple of times and went down a tube slide. It was all a lot of fun, and I always made sure I had someone I could follow. Well, except for one time when Kris and Rebekah called us from the lazy river to come join them. So with Ayman going off on his own at first and Nadya basking under the shade, I decided to sit by myself on the ledge by the entrance, dangling my legs in the water and waiting for Kris and Rebekah as they completed their lap around the river ever so slowly. Allison soon joined us, and under the tent, we all then started to talk about whatever was in our minds (well... I mostly listened). I found it interesting to hear everyone’s thoughts because almost none of these things have ever crossed my mind. I began wondering if I have opinions about anything or anyone, and so far, it seems like I don’t, except for things that I deeply enjoy like video games. And when it came to topics about life and the future, I also had nothing to say as I’ve rarely had social experiences and have only really thought about enjoying what I have now. Nonetheless, everything I heard was pretty insightful. I wonder how I would do in a debate. Unless I prepared and did research, the other side will most likely get the silent treatment from me after a couple of words (sorry).

We soon went to B-Bop’s for dinner. Kris made ordering food so much easier, so I got to enjoy a burger with some fries and a chocolate shake. It was all very good, but at this point, I was exhausted and felt like sleeping for 14 hours. Including everything I did as part of my research project, I’m realizing that I did a lot of new things this week (...wow).



0



0



0



0



0



0

[Uncategorized](#)[1 Reply](#)[Edit](#)

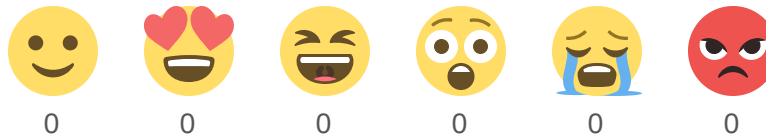
Week 7 Reflection


[July 16, 2023](#)[Andric Brena](#)

This week I spent most of my time working on our research project. I continued to advance through developing our text-based prototype, teaching myself different Twine-specific commands to make the narrative more engaging. I figured out how to implement images/gifs and create transitions to make the game more alive. I also worked hard in breaking down the text into dialogue so that it can be quickly digestible and interactive, similar to how other games present their stories through character interactions. Curtis managed to create a website that runs our prototype so that it can be easily accessible when test playing it at Storm Lake. Kris worked hard on building some scenes in Unity so that we could then grab screenshots for our prototype. My favorite part of the week was when we had the other interns test play our text-based game so far. Hearing their feedback was very insightful and has motivated me to look further into other Twine-specific commands and data structures that could help address some of their concerns. Because of that, I've been having a lot of fun going to VRAC over the weekend to continue working on it.

Considering our visit to Storm Lake is soon, we also worked on creating a post-game survey and focus group questions as a way to facilitate discussion and gather data. We also came up with ways to run a creative session to allow the students to act as co-designers as they brainstorm scenarios for other parts of the game. At one point, Eliot took us to the hub. I was happily drinking my mango smoothie as Eliot shared some of his stories and advice. We reflected on our time so far here at VRAC and talked about our plans after graduation. I've only really thought about finishing my undergraduate program, so I have no clue what I will actually do afterwards. Eliot made me realize that I really enjoy working directly with projects in a team environment, so I'll keep that in mind. I find myself in the same position that I was in during high school. Everyone guided me towards college despite me not understanding the importance of going, so in the end, I went solely for them. It wasn't until last semester that I realized I'm not just going to college for them but also for myself since I really do enjoy learning. Now, I'm being guided towards graduate

school, except this time I actually have an idea of what graduate school may be like and the benefits of enrolling in one thanks to all the people I've met in this program. Sometimes I think I'm too naive and positive for this world (because I trust everyone and will do whatever they suggest I should do). Nonetheless, I'll most likely go to graduate school, so I'll make sure to follow Eliot's words in not being afraid to reach out and build social connections and to apply for anything that I know I will enjoy.



 [Uncategorized](#)  [1 Reply](#)

[Edit](#)

Week 6 – Research Reflection

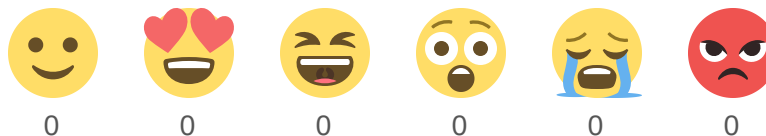
 [July 16, 2023](#)  [Andric Brena](#)

We were given tasks to focus on specific areas of our game design. I worked on developing our branching narrative through the open-source tool Twine. The goal is to have a working text-based prototype of our 3D game for when we visit Storm Lake. Since creating an interactive and functional 3D environment with a story and characters in Unity can be time-consuming, Twine would help us quickly create a text-based prototype to aid students in imagining and gaining a feel of what the final game may play like. It's my first time using Twine, and by the end of the week, I had created my first version which read like a plot. After receiving feedback and getting to understand better the code used in Twine, I plan on modifying my narrative to be more engaging by incorporating dialogue and having the player choose their course of action and their responses to other characters. Curtis presented ideas on what a cybersecurity game may look like which I plan to integrate to further increase the level of engagement. Kris has also been working hard on obtaining assets that we plan to use for our 3D game. For now, we intend on taking screenshots of these assets in Unity to serve as background images when playing through the text-based prototype. That way players would be able to visualize what the game would look like in a 3D environment.

Besides working on the prototype, we also had a big meeting with everyone on Thursday to reflect about Saby and Edith's visit to Iowa State University. Kimberly shared with us some of the literature review that highlighted research on how to effectively guide people of hispanic backgrounds to post-secondary education opportunities. I found myself

heavily resonating with pretty much everything that was being said. If it wasn't for the constant and direct care and attention I received from my mom and my teachers and counselors in high school, I most likely would not have gone to college (growing up I honestly pictured myself working at Deka or at Tyson like the rest of my family). And if it wasn't for my deans and advisors always checking in on me and pushing me to explore new things in college, I most likely would not be here right now either. Because of that, I'm thankful for all the people that have been in my life, and I appreciate the fact that Saby and Edith were given that same level of opportunity to connect with those in ISU and receive their guidance. It may seem like a lot of work to always direct one's attention to someone, but like Kimberly said, "it can really make a difference".

We also listened to Carmen Gomes during this week's luncheon lecture. Her vibrant personality made for a very engaging presentation, and her use of graphs and diagrams facilitated the flow of her talk and aided in my understanding of her research on food development. I'm starting to see the value of integrating flow maps in presentations to better direct the course of discussion as these have helped me a lot in grasping what is being said, especially during Yvonne Farah's dissertation on studying features and associations when measuring team cooperation in gaming.



 [Uncategorized](#)  [Leave a reply](#)

[Edit](#)

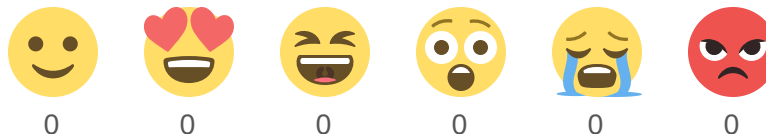
More fun activities

 [July 16, 2023](#)  [Andric Brena](#)

I think sleeping is a pretty fun activity, so I did a lot of that during our 4-day weekend. On Monday, Curtis had us ride our bikes to watch a fireworks show near the stadium. At some point, I was wondering about the appeal of watching fireworks as there's not much to do besides looking at the sky, but at other times, I was in awe because they were so pretty and loud. Now I want to go to Disney's Magic Kingdom again. It was completely dark on the way back home, so driving through the trees was kind of spooky. The thing that reassured me was the fact that I could somewhat see Curtis's shadowy figure as we followed the red lights from bikers who just so happen to miraculously show up in front of us. On the next day, Curtis took me on a bike ride to some secret place; I think we drove around a corn

field. There were some mulberries growing around, and we came across bee hives. I wouldn't dare to lay down right next to a hive and just stare directly at the buzzing bees. That's what Curtis did. On the way back home, we stopped by to visit two young horses. They came up to us with lots of excitement, and I petted them as they continued to munch on grass. On another day, Curtis made me ride my bike as he ran 6 miles. We traveled through a tunnel, went on a bridge, drove through nature trails, and even passed the water park. Overall, I have a lot of fun whenever Curtis takes me on a bike ride around the city even though I always come back drenched in sweat (cold showers have never felt so good). I also find it funny whenever Curtis asks me if I want to go because I always say 'ok' rather than a 'yes' or 'no'. I guess it's the only response that feels true to me for now.

Besides bike rides, Curtis took me to play disc golf with his friend Trey. I've never played it before, but they kept complimenting me saying I had amazing throws. Meanwhile, I had no clue what I was doing, but I guess I didn't do so bad for my first time. We all also had a pasta session. I never made pasta before, so I had a lot of fun moving the dough through the machine to make spaghetti. I also helped Curtis and Ayman a bit in making tomato sauce. I think it turned out nice. In the end, I ate like four small bowls of pasta because of how good it was. We had even gone to the Creamery beforehand, so I had some peanut butter-flavored ice cream as dessert.



 [Uncategorized](#)  [Leave a reply](#)

[Edit](#)

Week 6 – MCA Reflection

 [July 16, 2023](#)  [Andric Brena](#)

Despite it only being three days, this week felt like it lasted as long as any other week. Much of my time was devoted to our major course activity. Given that we were dealing with a large dataset, training our models for one epoch on our computers took about 2 hours even when utilizing the gpu. Because of that, we sought to move our files to a much faster computer. However, this proved to be more troublesome than we anticipated in terms of creating our anaconda environment and installing the correct packages to make use of this computer's gpu. Eventually, we were able to get everything working out, and it really made a difference as now one epoch only lasted about 4 minutes. I had also wanted

to see if I could graph a confusion matrix to better visualize how well our model is being trained, but by utilizing numpy or matplotlib, the version of our tensorflow would change, prohibiting us from making use of this computer's stronger gpu. Nonetheless, our next goal was to import a trained model to our unity environment to see if a vehicle can maneuver on the road on its own well enough. Again, we were met with more issues and couldn't see our models put to use before our presentation. In the end, we had a lot of struggle, preventing us from going deeper into hypertuning and addressing our main project goal, but having taken multiple computer science classes, it's something that I'm used to. I still learned a lot in the meantime by going through online resources, analyzing the code, and reading through the book Adam provided to us to further strengthen my understanding of the fundamentals behind machine learning.

The day of the presentations soon came, and though I wasn't really looking forward to speaking, I was still excited to listen to everyone's projects. Amy constructed an ocarina, focusing on how the amount of infill can impact the instrument's sound. Kris built a functional camera, studying how different plastic lenses can affect its lux. Tim sought to create parts that could hold wires in place to facilitate the process of attaching them to different devices. Each worked with a 3D printer, and I enjoyed hearing how they addressed the problems they found along the way. Allison and Nadya worked hard on creating an interactive VR environment where one can experience what it was like to live during the gold rush. Just the idea of being able to relive past historic events through VR blew my mind. Rebekah developed an interface to showcase what it may feel like to gather one's thoughts and visually plan out their day through VR. I agree with some of the comments I heard; one could've been put in a trance from watching Rebekah's presentation due to how well the visuals flowed. For our presentation, we talked about what we learned, our main goal, how we decided to extract features from thousands of images when training our model, and the challenges we faced. Curtis and Ayman did a great job at presenting. I was surprised when some mentioned I sounded confident. I guess I managed to address one area. Though, I do wish I had the capacity to say everything I had wanted to say, but at least I tried my best.



0



0



0



0



0



0



[Uncategorized](#)



[Leave a reply](#)

[Edit](#)

Other fun activities



July 4, 2023



Andric Brena

Because of the storm early in the morning, we had decided to go to a library rather than the farmer's market in Ames. It was fun to just walk through all the aisles and look at the book covers. I kept seeing a bunch of romantic and mystery books until I came across one fantasy novel that interested me. It reminded me of Narnia because of how the main character was dealing with a personal problem before being transported to a magical world with centaurs and unicorns where she is destined to be the hero of a war. After finding a chair and a table, I began to read through half of the book, and I got so invested that I somehow got sucked into the literary world and couldn't be found when it was time to leave (I'm sorry if I caused any worry).

Besides the library, we had a movie night at the JB Conference Room where we watched Coco. Every time I think about the movie, I'm reminded of when I was sitting in the living room of my great grandparents house in Peru playing a card game with my cousins before my grandmother and all her siblings came back home from watching Coco. I find it funny looking back because it was so obvious that they had all cried at the movie theater. Even after watching it at least six times, I was still on the verge of tears in the conference room. It is definitely a movie alongside Toy Story and The Incredibles from which I will never get bored from watching again and again.

My favorite activity that we had done so far was going to Emma McCarthy Lee Park. I rode my bike alongside Curtis and Ayman to get there. At one point, we went through a hiking trail, and I'm still surprised I somehow managed to not crash due to my bike skidding along the dirt a couple of times. I felt like one of those bike racers on tv. Once there, we met with the rest, and Amy had brought her frisbee to play with. I think the last time I played with a frisbee was in elementary school, so I was kind of lost in how to throw and catch it, but I think I managed to adapt and learn somewhat quickly. Because there was a net, Curtis then suggested playing a game of volleyball but with the frisbee acting as the volleyball instead. I had no clue what he meant at first, but I understood it after one round. I was having way too much fun that I felt sad when it was time to head back home. I'm not very active nor do I know how to play any sport as I'm still too scared to be placed in that scenario, but I appreciate the time I spent here as another moment when I was able to fulfill one of my desires.



0



0



0



0



0



0

[Uncategorized](#)[Leave a reply](#)[Edit](#)

Week 5 Reflection

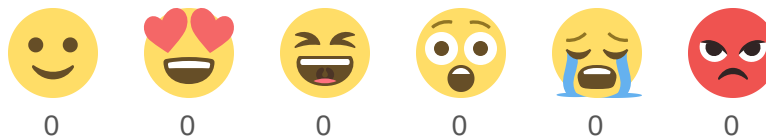
[July 4, 2023](#)[Andric Brena](#)

After being taught the foundation for machine learning, we began to work through the python code Adam provided for us. I enjoyed reading through the program and trying to understand what each line is doing. By doing so, some of the basic concepts Adam taught us were starting to make a lot more sense. My favorite part has been filling in missing lines of code with Ayman and Curtis to then be able to run and train our first model. I'm still a bit lost on what exactly everything is doing, so I've been reading through a book Adam provided us with to learn more about supervised learning. Also, to gain an idea on the machine learning project we're working on, you can read through Curtis's post titled "Machine Learning".

For luncheon lectures this week, we had Kimberly Zarecor and Myra Cohen present. I was tasked to ask two questions, and well, I kind of failed, but I did manage to see Kimberly in her office and ask one of them. It's what I usually do as I find one on one to be a lot easier. Whenever I have some research questions for my graduate student mentors, I try to find them after a meeting to get feedback which I then report back to my teammates. One time the conversation turned into Spanish so that was interesting (and liberating for some reason). Though, I do recognize the value of having everyone directly listen to the responses, so for Myra's lecture, I actually managed to ask a question. I don't know how I did it. I slightly moved my hand and got noticed immediately to my surprise. For my question, I was wondering more about the bio-inspired programming that was mentioned such as genetic algorithms since I've never heard of that before. Myra gave a good explanation on what it is, so that was nice to hear (and with that I am good for the rest of the year...unless I'm asked to try again...)

Again, my favorite thing I did this week was working on our research project. To help us prepare for when the Stormlake students arrive on Wednesday, we created a google slides presentation and a set of questions. Once Saby and Edith were here, we all introduced ourselves and gave an update on our game design progress. I tried my best to present the



narrative and associated themes we've developed so far. Afterwards, we went to eat dinner at a Thai restaurant. I got a mango smoothie and some noodles (it was all so good). Anasilvia had joined us too, and overall, it was nice to just be with everyone and get to know each other more. On Thursday, we had another big three hour session at the top of the Student Innovation Center. There, I got to know more about Saby's and Edith's stories and how they got into college. The big thing that I took away is the fact that they come from a community where the minority is the majority. It reminded me of my elementary school before I ended up moving to a better supported school. Then, we worked heavily on determining the main themes for our game considering their stories and brainstorming some scenes that represent these. We've also been trying to come up with a name for our game, and one idea popped in my head that so far everyone seems to like. On Friday, we continued brainstorming more scenes together before it was time to say goodbye to Saby and Edith. I'm glad they were able to come and meet us, and I hope they had a good time here as a way to help them further prepare themselves for their fall semester at Iowa State University. By the way, we had also all gone to lunch at a cafe with Kimberly, Tom, and Eliot, and honestly, I felt like I was in a family dinner with all the adults. I guess there are things that I do not understand or know enough about to appreciate from the past, but the food was good though.



 [Uncategorized](#)  [Leave a reply](#)

[Edit](#)

Some fun activities

 [June 25, 2023](#)  [Andric Brena](#)



We had gone to the farmer's market in Des Moines the other day. With it being my first time there, I was excited to walk around and see what every vendor had to offer. I didn't expect to see furniture, jewelry, and a station for pets. There were even people singing and playing instruments. One thing that caught my eye and made me want to check every vendor was seeing the variety of food from different cultures. I saw dishes from Lebanon, Thailand, Mexico, Venezuela, and El Salvador. Curtis kept saying how the pupusa, a typical food from El Salvador, is the most popular item at the market, so we got in line to get ourselves one. I never had one before, and yet I got filled with nostalgia the moment I took my first bite. It's been almost a month since arriving in Iowa and I already greatly miss the Peruvian dishes my family makes, but at least I got to fulfill that desire with another latin food. Another thing that I took away from this trip is the fact that I found the courage to buy myself something in person all on my own which I rarely do, and it was worth it since I got to enjoy a strawberry smoothie and, later on, a cup of homemade lemonade.



We had also done light painting. I had no idea what this was, but doing it was very fun. At the auditorium, we used our phones to emit light of different colors in the dark and swung them around as though they were paintbrushes. My favorite image that we created was a scene depicting two lightsaber wielders clashing against each other, which you can see in Allison's post titled "Week 3 Wrap Up" . I also enjoyed creating the scene of someone shooting their blaster at another person (I was one of the blaster shots), the image depicting one of our favorite foods (pizza is so yummy), and the ones with "VRAC BUNCH" and "SPIRE-EIT" (I was the 'B' in "BUNCH" and the 'R' in "SPIRE"...I think I might've miscalculated my height in relation to the rest oops).

Another fun activity that we did was visiting some parks. At Ada Hayden Heritage Park Lake, we found Glen who had brought his dogs to come say hi to us. They were very cute and friendly. Then we took a lap around the lake, and Tim began to share with me his

experience so far at Grinnel College. I'm also studying at a liberal arts college, so it felt nice to share our experiences and see how we're doing. After walking around the lake, we were met with another dog, and at that point, I just started missing my dog and my cousins' dogs who I would always pet and throw myself onto the floor to play with. At Ledges State Park, we hiked to Crow's Nest before we went to a lake where I was met with so many butterflies. I had also seen a weird plant, some tadpoles, and different kinds of birds. I don't really know the names of species when it comes to identifying certain plants or animals, but when observing the birds flying around, I was reminded of my college English professor who expressed so much enthusiasm when naming a large hawk that flew by our classroom window. After class, as I was walking back to my room, a large hawk, which may have been the same bird as before, swooped down and flew right by my side before going up and landing on top of a post light. I got so spooked, but I was also in awe because of how majestic it looked. Overall, I enjoyed my time at the two parks as I hiked along trails, hopped on rocks, and just immersed myself in the natural environment.



0



0



0



0



0



0



[Uncategorized](#)



[Leave a reply](#)

[Edit](#)

Week 4 Reflection



[June 25, 2023](#)



[Andric Brena](#)

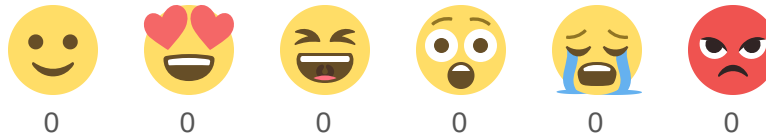
We started the week off by learning Unity. I imported my model from Blender into Unity and got to mess around with the asset store where I downloaded other farm animals to accompany my pig. The thing that blew my mind was learning how to attach a script to an object. I always wondered how coding is involved in game development and now that connection has been realized. I managed to make my pig move and jump based on what I press on my keyboard. I also added a button on screen that I can press with my mouse to turn on/off the light. I even incorporated collision to my fence and gravity to my animals to make them all roam around the house without escaping or falling through the ground. Though, by making my pig jump, he did manage to go over the fence and fall into the abyss (bye bye piggy). Overall, I had a lot of fun with Unity, and it made my research project much more clearer in terms of how we are going to develop our game.


Following our Unity course sessions, we began having Deeper Dive, and here, I got placed into the machine learning group where so far we've gone over the basic concepts, the different types of data that can be analyzed, and how to code in python where we make use of libraries such as pandas. With this being my first time studying machine learning, I think I managed to gain a good idea on what machine learning is, and I'm excited to delve deeper into it in the following weeks.

For our luncheon lectures, Stephen Gilbert and Cody Fleming joined us to speak about career paths and provide insight on life as a graduate student. I found these talks to be very engaging. I enjoyed hearing about Stephen's academic journey and the different people he met that all guided him to where he is today. His time at Namibia was also really interesting and made me start thinking about studying abroad. I appreciate the time Cody took to answer any of our questions. He provided more information on a graduate student's workload and their dynamic with their mentor, creating a clearer connection between our experience here as interns and that of a graduate student. One thing that I've enjoyed from all these luncheon lectures is having Heliya or Imtiajul with us as I'm always reminded that they're still students, and I'm glad that they can listen to and ask questions regarding research and possible opportunities to pursue.

The thing I enjoyed doing the most this week at VRAC was working on our research project. We were given the task to create a narrative for our game, and so I went crazy and started spewing out any idea I had. By hearing feedback from Kris and Curtis alongside the inspiration I gained from watching our mentors play games, I was able to develop a plot centered around the themes from our literature review. Kris did an amazing job at drawing



sketches to visualize our game, and Curtis was of great help as we discussed game mechanics. My favorite day was Friday when we held a 3 hour meeting with everyone in our research group, including Kimberly who just got back from her trip. All 8 of us discussed the game, providing new ideas and making sense of what we've worked on so far. As we ate lunch and shared more about our lives, I felt like we were one big family, so it felt sad to see Evrim leave, but at least she'll be back by August with Kimberly staying with us until then. I'm looking forward to working with everyone in incorporating these new ideas to flesh out our game, and, most of all, meeting the two Storm Lake students which I'm sure will be a fun time for them.



 [Uncategorized](#)  [Leave a reply](#)

[Edit](#)

Week 3

 [June 18, 2023](#)  [Andric Brena](#)

This week had us dive into SolidWorks and Blender. With it being my first time ever seeing a 3D modeling software, I found myself amazed when I saw Alex extrude a plane. I began to see the wide range of possibilities that can be done and started to make connections with other areas such as video games. My excitement to learn, however, was met with a great deal of struggle as it has been pretty challenging to understand how to utilize these modeling tools due to my unfamiliarity with their operations and the interfaces. Most of all, I lack the intuition as of now to imagine how to transport sketches on paper or images in my head to a 3D environment. I'm reminded of my experience in one of my computer science classes. There, I was thrown into a lab project in logisim for the first time without having fully grasped the fundamentals in terms of navigating through the menus and understanding the function and purpose for each circuit component. After countless hours of exploring and experimenting with various features, I found myself with much more confidence when it comes to using logisim, and it is this experience that has encouraged me to go through many of the SolidWorks tutorials and just press everything in Blender. I'm sure with time utilizing these modeling softwares will become easier and make more sense. For now, we've been working on creating a mini environment in Blender. Everybody has been doing a great job so far from what I've been able to see. I've personally made a house with a roof and chimney, some rocks, a tree, and even a pig (at

least I tried to).

Aside from these course sessions, my team and I have been working hard on creating ideas for how our 3D game might play. I've never thought much about game mechanics or the deliberate design choices one makes when introducing a player to a game for the first time. Because of that, I found it very insightful to hear the thoughts of Jorge, Hila, and Ezequiel when we played through some games for inspiration. We've initially delved around the idea of a rogue-like game in a fantasy world, and after meeting with professor Evrim, we're now looking into creating a narrative with several branched paths. I'm starting to see how difficult game development and design research in general can be when starting out, but at least we have many people around us as support.

We've also had luncheon lectures with Jonathan Claussen and Jonathan Kelly. Claussen's project on laser induced graphene and its various applications for precision agriculture was really interesting, and I found it informative hearing through Kelly's project and how he decided to measure a user's experience with different VR headsets based on their perception of distance. Overall, I had no clue what exactly many of the terms spoken meant or referred to, but I did manage to gain a good idea of what the projects were about, their goals, and how they sought to address a problem. Whenever it's time for me to present a research project, I'll definitely look back to these lectures as guidance (hmm could be pretty soon). Moreover, the conversations that occur after these presentations have been quite entertaining. For example, Kris started to go over what is and what is not a berry (I was kind of shocked to hear strawberries aren't technically berries while bananas and cucumbers are). Nadya shared one of her favorite book series and how she misses the freedom to read as a child (the Percy Jackson series is also my most favorite book series and I do find it sad how growing up has made it more difficult for me to find time and just read a book for hours until end). The question about whether men cry also came up (I guess the influences of society and culture can be pretty strong but is it wrong to admit that I do especially during emotional movie scenes, I mean it's only human to). There was even Tim's debate on what classifies as a sandwich (no comment...just kidding it was enjoyable listening to everything at the far end of the room).



0



0



0



0



0



0

HCI Homework – Frustrating Interfaces



June 18, 2023



Andric Brena

One interface or physical object that can be frustrating to a user are doors with handles designed to be pushed. There have been many instances where I kept trying to pull a door when in the end all I had to do was push in order to enter a room. I have seen other people experience this too, and it can be pretty funny watching them use all their strength only to then realize pushing is the answer. I haven't encountered a door like this as of recent as many of them can open themselves or are well designed enough for one to clearly understand how to open them. For the confusing doors that are still out there, those meant to be pushed can incorporate bar handles, specify whether it's to be pulled or pushed with a label, or just omit the handles entirely as one would naturally try to push considering there doesn't seem to be any other way.

Another example is a tv controller. Many times my grandmother has gotten frustrated navigating through menus using a Philips controller due to the sheer amount of buttons that are present and how some function differently depending on the mode. I still don't know what the four colored buttons are for. To improve the design of the controller we had, one could apply arrows for the directional inputs and reduce the number of buttons such as getting rid of the settings button as it should be easily found whenever going to the home menu. One may even incorporate a touch pad to further simplify the controller to contain only the basic operations and leave the rest to an on-screen user interface that utilizes this touch pad.

A third interface is plastic clamshell packaging. This type of packaging is useful for small items such as micro sd cards as it makes them stand out more and can discourage theft due to its bulkiness and how difficult it is to get the item inside. Nonetheless, for a consumer, opening them can be a frustrating task, especially if one doesn't have the necessary tools, and may even cause one to injure themselves (as I've done to myself a couple of times). Imagine buying scissors on the internet to open this kind of packaging only for it to arrive inside one itself (oof). Possible ways to facilitate this task can be to include perforations or opening tabs, written instructions to inform the user the best possible way to open it if they find themselves lost or believe applying brute force is the only way, or cardboard instead of plastic as part of the back for less expensive items such as toys.



0



0



0



0



0



0



Uncategorized



1 Reply

Edit

Advancing through our research project



June 11, 2023



Andric Brena

At the start of the week, we were given journals and articles to read through as part of our literature review. Some were a bit challenging to understand, especially the one revolving around critical race theory (CRT), but by taking my time and writing down notes, I was able to grasp a good understanding of what the author was trying to say. I wrote down summaries to check my comprehension and discussed the main ideas with one of my teammates who was also trying to understand the journal centered on CRT. Some of the themes I took away from reading the texts include the hindering effect of homophily on social capital and the sense of empowerment gained from the acknowledgement of the

backgrounds and strengths of people of color. Overall, going through the literature review made it clear to me as to why we're working towards designing a 3D game with a bilingual interface meant to help and encourage first-generation students on their journey to postsecondary education.

This week's Craft of Research had my teammates and I work through creating a problem statement for our project. Similarly to reading through the literature review, writing down a problem statement helped me clearly understand what our project is about and what it intends to accomplish while connecting it to our target audience and the scenario they find themselves in. My team and I also played through a Facebook game called Mission: Admission that was created to improve a student's college-going efficacy and their knowledge on how to build a strong college application. We discussed our likes, dislikes, and suggestions for improvements with each other and eventually with our grad student mentors. I found the experience to be very insightful as it helped me to start thinking about how we are going to create our 3D game. To further address this area, we'll start learning more about game mechanics and possibly play some games to gain inspiration for our game's design. By the way, if you want to gain a general idea of our research project, Curtis's post "Week 2 - C++" does a great job of providing a detailed overview of what the project is, its goals, and some of the main steps to be taken.

Besides working through the research project, we've also all done some pretty fun activities. I went to an escape room for the first time, and it was cool how the shelves were secret doors. I can't wait to go to an escape room again, especially with my cousins. The next day some of us volunteered to help at a bike shop organized by We-Cycle. Tim and I worked through removing bike pedals. I admire how Tim likes to take charge and push himself to accomplish something; some of those pedals were extremely difficult to remove due to rust. After helping out, we were all rewarded with bikes for the summer. I can't believe I've actually been finding the confidence to ride my bike to the office and sometimes even to the dining hall all on my own, but I guess Curtis is right: riding a bike through campus is pretty enjoyable. On Tuesday we had a movie night and watched *The Empire Strikes Back*. I didn't really say anything at the time except to my roommate Ayman, but I guess I might as well write here that I'm also a big Star Wars fan and, like Amy, I find the prequels (they exist to me) to have a place in the franchise with *Revenge of the Sith* being one of my favorites. Oh, we also did yoga on Thursday. That was interesting and relaxing I must admit (I'm glad I found a spot at the back though).



0



0



0



0



0



0

[Uncategorized](#)[2 Replies](#)[Edit](#)

Starting the class sessions

[June 9, 2023](#)[Andric Brena](#)

We started the week off by learning C++. I had already learned C++ alongside C and assembly language a couple of semesters ago, and considering my knowledge of Java, I found the material to be quite easy. Still, it felt nice to go over the basics and complete the challenges provided, and I also got to explore vectors for the first time. What I enjoyed most from these sessions was checking in on my teammates where I answered any of their questions, guided them when they got stuck, and tried my best at explaining conditionals and classes. I realize object-oriented programming can be difficult to grasp as it demands abstract thinking, but I'm sure with time it'll become easier to comprehend even for those who are currently struggling with it, especially since we have Nick and Adam who do a great job at teaching. In the following weeks, we'll learn about modeling and unity. I have no clue what those are.

Besides learning C++, we also began to have luncheon lectures. I appreciate the talks given by James Oliver and Eliot. When I first heard about PhD programs this past year, I thought that they were meant for those who want to be professors (...I can't imagine myself as a professor). However, James and Eliot made it clear that those with a PhD may choose to enter academia or the industry when deciding where to work and that, overall, grad school is extremely beneficial for opening up a multitude of opportunities. Now I'm starting to understand the value of continuing my education beyond my undergraduate degree (and why my major advisor wastes no moment to tell me about grad school). I already plan on pursuing a master's or a PhD degree, though I'm still not sure what exactly for, but maybe I'll have some idea by the end of the summer.



0



0



0



0



0



0

[Uncategorized](#)[Leave a reply](#)

End of the first week



June 4, 2023



Andric Brena

We got to hear more about each project, and though I do share the same overwhelming feeling as my peers, I am sure we'll all do well, and I'm also quite excited to get started. My group and I then met our faculty and grad student mentors. We gained further insight behind the project and how it came to be, and we also got to learn more about each other at a sandwich shop; the food was really good there!

On Friday, we got to explore the different projects happening at VRAC. I've heard about virtual reality before, but I've never seen what it is or experienced it in person. Everything seemed so real! Also, when we did the campus tour the other day, it was my first time learning about and seeing a 3D printer, and on Friday, I got to be inside one and see how it works through vr! That was kind of crazy.

My favorite activities on Friday was doing the team building exercises. Curtis, Kristi, and I had to address the problem of our customer Nadya which was her exhaustion after a day of classes. We decided to focus on the physical toll she has from carrying her heavy tote bag of textbooks, notebooks, and other materials. I was randomly given the role of a squire, so I basically had to do everything I was told. I liked my role because well I already do whatever I'm told, but I was also able to provide lots of ideas and guidance on what it is we would want to create and how to do it that I ended up doing what I had mostly imagined. Kristi and Curtis did an amazing job at designing, enhancing, and putting together the ideas we all shared, and in the end, we were able to produce a model of the Tote Bag Roller which would let Nadya roll her tote bag and even herself around without needing to carry anything. I attached a picture of it below (I think it's pretty neat).

We then worked with our grad student mentors. I enjoyed getting to hear more about them and the project that my mind was already filling up with a bunch of ideas to explore. I do find it interesting how I share a similar experience with the subjects of our research project. As we created the scenery depicting our vision of our research process in the next 9 weeks, the sense of uncertainty came to arise again, but I agree with Curtis: as long as we can hone in on a specific goal/problem and maintain focus on that one thing, we'll be fine.



0



0



0



0



0



0



Uncategorized



1 Reply

Edit

First couple of days



June 2, 2023



Andric Brena

I enjoyed seeing the vast open farmlands as Heliya, Ayman, and I made our way from the airport to the beautiful campus of Iowa State University. Compared to my small college where there's a bunch of trees, squirrels, and sometimes even foxes and deer roaming around, the campus here feels like a whole city. When I met the other interns, mentors, and faculty members and learned more about the program, I knew I was about to experience a fun and memorable summer. They are all very nice and welcoming people and the sense of deep exploration and discovery involved with research feels exciting. Just from hearing Stephen and Eliot as they provided more insight about the program, I found myself opening my mind more to thinking critically about situations and the seemingly endless possibilities of questions one can ask when approaching them. I enjoyed all the group activities we've been doing. Sharing and combining my ideas with Rebekah when designing our food app and struggling to maintain upright our tall spaghetti tower with Curtis and Kristi was really fun. Hearing more about people's background and learning new facts about Iowa during the group dinners was also pretty cool, and though I don't know how to play volleyball at all, I still had a great time just being with everyone. I've been

working on getting myself more involved socially the past school year by always visiting my professors, attending talks/workshops, doing volunteer work, and saying hi to those I recognize, but this is next level. I think I'm doing fine though, and I hope I'll be able to continue pushing myself in speaking up a little bit more. With everyone being so supportive, I'm excited to learn and even struggle as we head into the realm of research where we will explore ideas and discover together what works and doesn't work and why.



0



0



0



0



0



0



[Uncategorized](#)



[Leave a reply](#)

[Edit](#)