REU|2017

Summer Program for Interdisciplinary Research and Education – Emerging Interface Technologies (SPIRE – EIT)



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Brittney Hill

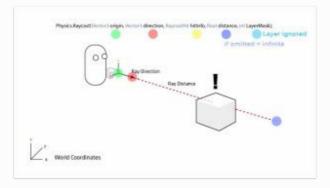


its the LAST WEEK | WEEK 10(britt)

1

Posted on August 1, 2017 by bhill35

Tuesday: Today is Tuesday and our last week at VRAC I will miss all the good times I had while here in lowa but, we still have work to do. Yesterday, I officially finished the menu which didn't take too long. Today my main focus is the raycaster and THIS is where the real issues arise. You would think it would be relatively simple to make a laser appear in the game display that can be used to click buttons (and in hindsight it probably is). However, for a person who knows no C# and is using Unity for the first time, getting my laser to work has been a hard task.



After talking to my grad student mentor, I learned that my logic for the way the raycaster in the menu should work is correct. So now, I just need to learn how to code all of the functions I am trying to perform in C# for Unity. I like the Unity docs(kinda) but they lack in variety of examples for the code they provide. It would help me SO MUCH to see examples when trying to figure out where certain parts of the code should be placed and whatnot. But hey- I'm learning a little C# so that's cool.... yes, it is a major pain but... I'm getting it done.

xx britt

Posted in Uncategorized | 1 Reply

Story-boarding and Justifications | Week 8 (britt)

1

Posted on July 19, 2017 by bhill35



This week, my group has been working on some pretty important stuff. We've been creating a storyboard for all the functions and general flow of our project, justifying all the things we plan on doing within our project(using research articles) and a little writing. It doesn't sound like much but so far it's been taking some time to get done. We need to justify things like where instruction text will be located, if we're pointing a laser to select things or grabbing, and what colors will symbolize in our training and why. Answering those questions can be a little tricky already, but finding research to supplement those conclusions is definitely more difficult. Regardless, I feel like our group is on the right path, I am just hoping we have time to complete all the things we need to get done.

I also caught a little case of home sickness over the weekend. There is a little dispute with my neighbor's dogs and my dog that my family has to deal with at court and I've been wishing I could be there for all that. So, that put a little damper on my mood at the beginning of the week, but it's Wednesday now and I am feeling a lot better. I am really excited for Kayaking this weekend since I have never been and I know these next two weeks will fly by. So, I am trying to stay focused on my goals and my research so that I finish off this program strong!

xx britt

Posted in Uncategorized | 1 Reply

More Deer & Presenting our MCA Projects | Week 7(britt)

Posted on July 13, 2017 by bhill35

More Deer and Presenting our MCA Projects





Week 7 started off with the presentation of our MCA projects. I spent time until two talking with Alex to learn more about the 3d printing process while printing my second version of the deer, cleaning the support off and editing the powerpoint presentation we made for the projects. As mentioned in at least three other posts, my deeper dive topic was 3d printing. I printed a deer with flowers, and we got to present our projects, explain our approach, and test out other people's projects. Then we judged the projects, and I believe the 'Unity Shaders' group won?

Regardless, we saw some really cool stuff. One group used Unity to make a game where you go around obstacles with a ball. The other group made a zombie game where you had to shoot the zombies with your controller. The other deeper dive group made C6 programs where you could look inside tractors on a farm or walk through the simulator to a snowy world, then a desert, then grassy plains. All the projects were really impressive. I must say, I have some very talented people in my cohort.

Besides the presentation, my group (we call ourselves BAEs now because it's a good acronym for Brittney, Austin, Emma) worked our powerpoint for an oral presentation with an REU program via webcam on Wednesday. Then called it a day.

TUESDAY:

I spent the time until lunch on Tuesday working on the presentation for the other REU program. Something I don't necessarily enjoy doing is creating power points that have a professional appearance. I feel like professional and ugly/boring don't have to coincide but as I learn more and more about a professional powerpoint, It seems like they do. I guess it shouldn't really matter because the point is to get the information across and not to impress the crowd with your artwork. Sadly, I am one of those people who enjoys making flashy and creative power points and there is just no room for that in the professional world. This is

something I am assuming I'll just have to get used to until I learn more about the subject or become my own boss. But hey! That's motivation.

After my powerpoint work, It was time for lunch. Eliot was our lecturer at lunch today and I really enjoyed his talk for a few reasons. One, he is a professor, so he knows how to lecture. I wasn't bored because he wasn't saying anything that wasn't relevant to me; He kept things interesting. Two, he stopped and allowed us to ask questions. It was an informal lecture where we were allowed to interject when we felt it was needed and I appreciated that aspect of the talk. I learned a lot about graduate school, which I was already planning on attending, and I learned about starting a business which is also something I plan to do. I've had the idea of a startup in my head since I learned about computer science, and Eliot owns three businesses, so I loved that I had the opportunity to hear about the process of working in and owning a startup.

WEDNESDAY:

On Wednesday, we had our presentation to the other REU program located in Southern California. We practiced and edited our powerpoints until it was time to present. That's about a 5-hour span so, of course, that is not all we did. Our group has been working on a storyboard for our project as well. As we get closer and closer to the end of our program, pressure has been rising. Everyone has their own ideas on how things should be and I saw some of that in our storyboard session. However, my group tries to be understanding of one and other which I really appreciate. We try to give each other time to speak and opportunities to express our opinions and ideas. I think now more than the rest of the summer, I have been learning how to work in a team. Learning how to work with different types of people is a very beneficial skill to acquire and I am glad that my group members are all upfront with their ideas so that we can all figure out solutions together.

We had our presentation at two and I think it went well. I enjoyed hearing what the other REU students were working on because they were focusing on virtual/augmented reality like our REU program. The students at their REU were very respectful and asked questions about all of our projects. Overall, presentations were a success.

xx britt

Posted in Uncategorized | Leave a reply

Unity Scripting | Week 6 (britt)

Posted on July 7, 2017 by bhill35

Scripting in Unity

I started off today by going over some **basic** scripting in Unity syntax. I know during our project we will be using Unity-so I figured it would be a good idea to get a head start on the coding aspect while our grad student mentors are out of town. I did that for the first half of the day and then for lunch we had an etiquette class.

I remember when I was a kid my mom would occasionally joke that I needed etiquette class. So, it was cool to try it out for once. The plating looked fancy, and there was a ton of silverware and different things to drink. I felt like I was having dinner with the queen. Not going to lie- I was a little nervous to eat because the teacher was making eye contact with everyone and I wasn't quite sure how to eat some of the items right off the bat. Some of the questions I asked sounded like "What's the fancy way to eat bread" and "is the pinky up rule really a thing?". Nevertheless, It was a cool experience, and the food was great!

After lunch, we sat down for blogging time. Everything was calm then....

BEEP! BEEP! BEEP!

the doors slammed shut.

We had probably the most startling fire alarm I've had in a while; Fire trucks and police cars came so I am not sure if it was real or a drill, but we weren't outside long.

Later, we had a meeting with one of our grad student mentors, Adam. He helped us get a feel for what we need to put in our abstract as well as how our oral presentation should be formatted. It was great getting another set of eyes to look over our work for our research symposium this weekend before we send it in. It seem's like all our grad student mentors, as well as the leader, are absent

for this week; So, it was nice to have some person to person help before we start emailing everyone this weekend

When I got off work, Sophia and I took a cycling class for 50 minutes. At the end of the class, we were drenched in sweat and it was a great workout, to say the least. When we got back to the apartment, It was time for dinner; However, I wasn't feeling any of the food I had at the time. So, I biked to Hy-Vee and got a plethora of edamame beans (officially my favorite vegetable) as well as a lot of plums (my fav fruit). I biked back to the apartment in the 91-degree weather and, though I was sweaty and dying inside, I ate my dinner and was very content!

Great Thursday.

xx britt

Posted in Uncategorized | Leave a reply

Getting Organized | Week 6(britt)

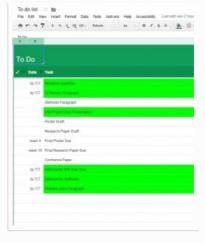
Posted on July 5, 2017 by bhill35

Organization and Staying Task

Oriented

After our 4 day weekend, today I am well rested and back at work! The 4 day weekend was a great way for me to not only get a lot of

stuff done but also recharge and think about the direction of our research so far. From this mini break- I realized our project group (WATCH) needed some time to organize and get together a list of task with their respective dates so that everyone is on the same page. So, when I got to the VRAC lab today, I spent the first 30 minutes organizing our Google drive, making Google docs for the things we need to accomplish and adding instructions to the task (found via the REU website). I also created a color coordinated to do list because we have a lot to accomplish and I've learned through this past school year that trying to remember everything you have to do is not an effective way of keeping up with task at all.



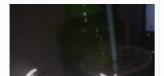


After the organization, I began to make my powerpoint for my deeper dive topic. For my 3d printing project. I took some designs from

Thingiverse and combined the objects and layered them to create one unique design of a deer with flowers. I also added in a chain to hang the design on a keychain or wall. So, in the powerpoint, I've just been describing every step of the process from finding the designs and combining them with 3d printing to any issues that came along with this process. The powerpoint is about halfway done, which is good considering I was planning on doing it this weekend. I got a great headstart; So now I am hoping to finish it by Friday- If I have time.

After working on the powerpoint, I decided I should start writing this blog now because for the last two weeks I have been really bad about blogging. Actually, I haven't been doing to great keeping up with my personal goals these last two weeks. So, I am dedicating these next few days to not only my research (duhhh) but also getting my personal goals back on check.

I got to see my 3d print today and although it didn't turn out exactly how I expected- it still looks pretty cool! Here is a picture of the design with support left on.









After talking to Alex, I decided that the flowers might print better if they are extruded (made thicker). So here is my design with the thicker flowers and one less chain. I have to say- I don't know how I feel about the appearance of the deer with thicker flowers. Now I feel like the flowers are overkill... So, this might be updated soon.





I spent the second to last hour of the day taking off the support on the deer and I admit it doesn't look much different(and one of the flowers slightly broke) but here's the finished product:





I think I am going to call it a day on working on the deer. Now, for the last hour of work, I am going to review some VR software research so we can narrow down potential software options. Then, I am off to the gym. Posted in Uncategorized | Leave a reply Day 28(britt) Posted on June 30, 2017 by bhill35 Nav 28 I woke up extremely tired today and it took me two cups of coffee this morning just to function like a normal human... so that's fun. Besides the groggy morning start, we had 3d printing today, which I must say I really am enjoying learning about. Alex has started giving us time in the session to design and look up stuff on our own which has been very helpful for me. He spent the fist half of the day talking about different types of rapid prototyping, then after our mini lecture, he let us design for a potential test print. During our free time, I researched a lot. I learned in depth difference between FFF(fused filament fabrication) and SLA (stereolithography). Makerbots(the 3d print machine we will be using) utilizes the FFF(or FMD) method for 3d printing. So... here's a little info about what an FFF entails. When using an FFF, the printer extrudes material (typically plastic) through a nozzle and lays down consecutive layers of materials at a high temperature. Then, the machine allows for each layer to cool before putting down the next layer. This method works with gcode(computer instructions that position motors/ decide volume of extrusion). This method is beneficial when you want to print something that doesn't need 100% accuracy because tolerance ranges from .05mm - .5 mm and because it can be printed will little to no infill, it is more cost effective. After our first 3d printing session of the day, Kate, Emma and I went to Freddy to grab lunch. I don't remember if I've mentioned this but I loooove freddies meal options. I wish my school had a part convenient store part restaurant part Starbucks by my dorm like Iowa State does :/ We biked back from Freddie then it was time again for our 2nd 3d printing session of the day. At this session, we practiced creating designs. I still don't know what I will make for my 3D printing project but I have an idea that would take some designing expertise. So, I've been trying to practice my designing in Maya. However, if you recall from my post when I was learning Maya, CAD software (and especially Maya) doesn't come easily to me. That's part of the reason why I chose to use Maya for my design. I figured, If I figure out how to use the software that gives me the most trouble, the perseverance will allow me to approach more problems later. I'll update on progress soon (: xx britt Posted in Uncategorized | Leave a reply Day... Uhhhhh | (britt) Posted on June 29, 2017 by bhill35 Day Uhhhhhh....

So, I haven't posted in a day or two... So I will try to shove all I did this Friday, this weekend and Monday into this post.

FRIDAY:

Friday we had our 3d Printing class. During our class, we got to start looking for 3d objects we'd be interested in creating. Alex mentioned trying to combine multiple prints into one, and this is something I think I will try to do if I find compatible designs. Our 3d printing session took up most of our Friday lab time.

After the lab, the group went to a concert at the Des Moines Art Festival. The concert was by a band called Saint Motel, and I really enjoyed their performance. Another cool fact about them is they're working on a virtual reality version of their album. It's crazy because I feel like ever since I've been at VRAC, virtual reality has been causally appearing all around me. Or maybe I am just noticing it more? It is likely the second conclusion considering VR has a projected revenue of 80\$ billion by 2025(according to Goldman Sach) it only makes sense that I've seen it everywhere...

Fast forward to Sunday--->

Our group met up to work on defense for why we should use virtual reality instead of augmented reality for our project. We also worked on our abstract for the conference we are trying to attend. Then after completing the hard work, we went out and played volleyball with our CA – putting an end to a productive Sunday.

On Monday, I had some struggles which I do recall writing about(refer to day 25's post. I'm not too sure that's the right day # Oops) So, we can skip Monday's portion of this post.

Tuesday:

Our free day was spent prepping for the meeting we had at 3. If you saw what we went over in the meeting, it might seem crazy that we spent so much time prepping for the meeting (we really only presented our defense for VR paper) but that's simply because we overestimated what our mentors wanted from us. We were under the impression that we had around four different papers we were supposed to be showing them. They weren't all necessarily papers that were long, but we still spent a great amount of time on themthen realized we weren't reviewing them halfway through the meeting. I guess it's for the better because now we get more time to work on the papers.

After the meeting, our group talked about what we should work on next. Then we headed off to the apartments. At around seven, we had a little team bonding movie night. We watched Moana and it was really cute.

xx britt

Posted in Uncategorized | Leave a reply

3D Printing, An Early Start & Leaning In | Day 19(britt)

Posted on June 26, 2017 by bhill35

Day 19

Today I woke up at seven! I say this in excitement because if you guys remember from my early post(I am sure you don't) I said I was trying to wake up early every day. That sort of fell off this past week because.... honestly just because I love to sleep. HOWEVER, today I woke up at 7 am after waking up at 8 am every day this past week. Hopefully, I am getting back into the early morning a bit but I can't be too sure yet.

When I was at Facebook for my Girls Who Code program, I had a mentor named Ashley who was a project manager at Instagram. At our graduation, Ashley gave me a book written by Facebook's COO, Sheryl Sandberg, called Lean in. Despite that being about two years ago I have yet to read that book she gave me. So, for this summer I brought the book with me (and also downloaded an audio version) so that I get through it at some point of the summer. Well, today was the start of that 'some point'. I started listening to the book this morning while getting ready and on my bike ride and Caribou Coffee stop. Now, it's only been day one, and I've been listening/reading it every chance I get. I must say, like Ashley described in the note she left me inside the book, it is "a must-read for a smart, ambitious woman like me" (and you too reader: P). If you're a guy, this book will give you great insight on what working women have to deal with, and how you can help put an end to the dilemma. If anyone in the cohort wants to read the book after I am done(probably by the end of the week) let me know!!!!

When we got to the VRAC lab, our first session was our deeper dives. As I told you in the last post, I chose 3D printing. So, my session was with Alex, a 3D printing expert. I crossed out expert because he says he's not (but I am pretty sure he is). He talked to us about all the history of 3D printing (I honestly thought it was a new thing... boy was I wrong). He also went through the different techniques for 3D printing (like FFF) and different types of printers. We also got some background knowledge on the printers we will be using (Makerbots) but I plan to do more research on that later to share on the blog. So, stay tuned (:

xx britt

Posted in Uncategorized | Leave a reply

Biomass & Conferences | Day 23(britt)

Posted on June 26, 2017 by bhill35



Today was our last free day of the week. So, I started off the day reading an article. Then, It was time for our lunch lecture! Our lunch lecture for today was especially interesting to me because the environment is a very important topic and the lecture was about renewable energy(biomass in specific). Our lecturer was an engineer who was working on creating fuel from biomass that was equally as efficient and relatively as cheap as crude oil. I didn't really know much about biomass and what it uses are so it was very eye-opening for me to learn about.

After our lecture (and a great meal of pasta), we had a craft of research session where we learned about all the different elements we will encounter while writing our IMRD. IMRD stands for Introduction, Methods, Results, and Discussion and is the general format of our research paper. As someone who enjoys writing(to an extent), I am excited to get to writing with the group soon!

Craft of research ended, and next on our calendar was a meeting with Stacy. During our meeting, we went over an abstract template the WATCH group grad students had sent off to a conference that we are also trying to go to. The abstract was conveniently placed in a template(that the conference requires we use). In the template, there is a section for keywords, contributors, the actual abstract(in 100-200 words) and pictures if you so desire to add them(which we do). I'm really excited to start writing for this conference as well because If we get approved, the conference is in San Fransisco. The last time I was in San Fransisco was when I first learned how to code. So, If I go again, I know it will be a nostalgic experience.

After our meeting, we had an hour more of independent work, then we were done for the day. So, I went to the gym and did some new exercises I had looked up the night before. I am learning more and more about the gym every day and I have heard that switching up exercises is good to constantly keep your body on its toes and keep things interesting in the gym. So, I am going to try to switch up my exercises every few days now because so far I've been doing the same machines every time I go.

Around 7, the apartment building we were staying at was having a grill out. So, Sophia, Sushi and I waited outside for about an hour and a half for ONE SINGLE BURGER. It was ok though because we had a great convo in line and I got to meet my CA. She had just come back from Europe and was really cool. She said she wanted to try Sushi's Occulus, So I am sure you guys will see some pics of her screaming in that haunted house game (like Sophia did) soon.

After the grill, we stayed outside a bit to play comhole. Then it was 9:30 and the sun had finally set. So, I decided it was about time to get in the mood to go to sleep. Sophia and I went back to the apartment and I surfed the interwebs until I fell sound asleep.

xx britt

Posted in Uncategorized | Leave a reply

Scripting in Unity and Choosing My Fate | Day 21(britt)

Posted on June 22, 2017 by bhill35



We started off today with another Unity lesson. We learned about scripting, lighting and button presses. I still like Unity which is good because I get the feeling we will be using it a lot in our project. The scripting was giving me some trouble when we first learned it but I think I am starting to get a hang of C# in Unity and we had a great teacher (VJ) who broke down the scripting step by step. This really helped me grasp each concept a lot better. So if you are reading this VJ YOU ROCK!



We left the unity session slightly early because we wanted to go see a session about user interfaces. The session was about comparing our typical method of passcode interface(the iPhone 4 digit passcode model) and 2 other models for passcodes and seeing which interface was most natural and why. The presenter concluded that the iPhone model was most natural but that was likely because of participant's familiarity with the interface. I was slightly confused about why this study used one passcode system that most people know about and two others that most people don't know about. It seemed like the fact that most of the participants had already used the iPhone passcode hundreds of times would create a bias to explain why they preferred that system over the other two. If the presenter was trying to test which interface was most natural for users, I feel like she should have chosen three likely unbiased or unfamiliar interfaces instead of two unknown and one really known interface. I can't be too sure if that was the outcome her research was studying (it seemed like it) but I am still learning about research so I could be totally wrong. These are just my comments and thought process... and regardless, It was a very imformative presentation and I learned about user data a little

After the presentation and lunch, we came back and finished our Unity session. We learned about creating buttons and putting words and text into our Unity projects. After our session, we were asked to choose our deeper dives topic. Deeper dives is essentially a topic that you learn about in 6 sessions. There were three deeper dives: 3D printing, Unity shaders(rendering, materials, textures) and Unity Immersive(creating immersive environments). I got my number one choice, 3D printing, and I am really excited to create something at the end of the 6 sessions and learn more about how to use SolidWorks. I initially was going to choose the Unity Immersive session, however since we will be using Unity in our project, I know I'll be spending a lot of time learning it in my off time (weekends and after work). So, I thought it would be better to learn SolidWorks because my school just got a 3D printer and I'd be able to make stuff there or, if I get good enough, I could teach a basic workshop on 3D printing at my school. I'd say that idea is a stretch since I don't even know how good I will be at 3D printing, but I am optimistic.



The lake looked so pretty today (as if it doesn't always)

After choosing our deeper dive topics, I finished an article I started the other day and then left the VRAC lab. I decided it was a good day to ride around a bit and explore lowa State; So, I did that for a bit. I didn't go to the gym today but I did do some at home workouts. After working out a bit, I worked on my conference application more, then cleaned a bit. The guys(Emmanuel, Chris, and Jameel) had made non-alcoholic sangrias and invited everyone to try it. So, Devi and I went up to their room for a bit and chatted. The other day the group found the Youtube channel I costarred in for Girls Who Code, and ever since the discovery, I've been hearing ukelele jokes left & right. Regardless, everyone seemed impressed with the series which made me feel good about myself.



Eventually, I left their room to read a little bit of an article I need to finish for the next day. Then I was off to bed.

xx britt

Posted in Uncategorized | Leave a reply

Lit Review and Group Meeting | Day 20(britt)

Posted on June 22, 2017 by bhill35

Day 20



Today was our free day, so I spent most of it doing lit review. We had a meeting with Eliot and our grad student mentors later that day so the group was just trying to make sure we were prepared for any questions they threw at us. In our group, Watch, our mentors/leader always try to throw many questions, comments, and concerns at us and really test our knowledge and limits. This is unlike any other mentoring group I've been in before, but I must say, It is very helpful. All the questions and criticism are meant to reflect what we'd come across in the real world so that once were out doing research on our own we won't make as many mistakes(hopefully). This kind of challenging learning, I think, is the best way for me to learn! So, I am enjoying the obstacles and I am learning more and more about VR/AR every day!!

I've gotten a system for lit review that I like so far. I read an article in Mendeley desktop (so that I can add notes) and short notes for every idea/topic. That way if I read the article and forget the specifics on what it was about (which does tend to happen) I can look over my notes for a refresher. This tends to make my notes a little lengthy, but I think that is better than missing information. After I did a few lit reviews on AR/VR, I came to the realization that I should probably be reading about user interfaces and the process of training since there's potential that we could be creating a training interface.



So fun being at a school where everyone bikes!!

It was about 2 hours before our meeting when Eliot asked us if we had a timeline. "Yeah" Emma and I responded without thinking much of it. Sure, we had a timeline; We hadn't really paid much attention to it though.. It was more of a guideline. "OK, then have it ready to present at the meeting"

Crap.

There was no way we were using the timeline we made at the beginning of the program(it wasn't even updated) so, we decided to make a new one. Emma suggested making a powerpoint, and the group agreed, so she started putting in information. After the general powerpoint was made we edited it a little added in a graph and we were done.

When we got to the meeting, the first thing on the agenda was to present the timeline. Eliot sat in silence as Emma read the details of the powerpoint, then once she was done we got the verdict. The timeline was unrealistic when it came to the development stage (It stated it would only take us 2 weeks to develop when the group estimated at least 4 weeks) and It was lacking in regards to grammar and punctuation consistency. Eliot described to us all the possible issues we could have had if we presented that powerpoint to the audience and the problems were very eye opening. Needless to say, we learned a lot in this meeting! I think it went well!

After the meeting, I went back to reading articles and taking notes. Then, around four, I realized that I hadn't really done any blogging for this week. So I started writing this post; Then, the clock struck five and it was time to go.

I went to the gym, as part of the workout at least five times a week habit I am trying to create. After the gym, I went outside and found a nice grassy area to edit some videos I am working on. I did that for a couple hours and got to see the sunset (hence the picture at the beginning of this post). Then, I did a little research on high-performance computing because the conference I am applying to is for HPC(and I'm pretty sure we will be using it if we choose virtual reality for our project).

Eventually, It was 10. So I tried to get myself to fall asleep by 11 but of course, I didn't sleep till 12. Oh well, better luck next time?

xx britt

Posted in Uncategorized | Leave a reply

A Weekend of Family Visits | Day 17 & 18(britt)

Posted on June 20, 2017 by bhill35

Day 17 & 18

This weekend my mom and aunt came to visit me! They were both visiting my godmother in Chicago and chose to endure the five-hour trip to come see me (: I was really excited to see my mom, even though its only been a month, and I hadn't seen my aunt since my high school graduation. So, it was great being able to catch up with both of them. On Friday, when they arrived, I showed them the apartment then we went to Jeff's for pizza. My mom is really picky when it comes to food and at first, wouldn't trust me when I said she would like Jeff's. However, after much persuasion, I convinced her to go. And you know what? She liked it so much she said she would eat there again(which is saying a lot for my mom). Moral of the story: Don't knock it till you try it.



After dinner, they dropped me back off at the apartment and I went up to one of the boy's room to play Fibbage. This is a game where a narrator asks a trivia question. There is one right answer(obviously) but all the other wrong answers are created by the players. So you'd have to guess the right answer out of them all. It was a pretty fun game and I got the most thumbs up on my responses for one game so that was pretty cool!

On Saturday, the group woke up early to catch the bus for the farmers market at 8:45 am.



Emanuel chose this flower for me because it matched my outfit. A true fashion designer in the making

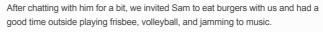
However, when we got on, we had apparently chosen the wrong bus; The bus driver was

nice enough to drive us as close as possible to the farmer's market while staying on route and we only had to walk a short distance to get there! The farmer's market was great! However, I didn't get many pics of it.. but Natalie made a great blog about it!

At the market, I met up with my family and we went to the local mall. After the mall, we went grocery shopping then I hung out with my family at their hotel for a bit. After that, they drove me back to say our final goodbyes(they were leaving Sunday morning). After I got back to the apartment – the group was having a grill out so I stayed outside for a couple hours for those festivities.

We also met a friend named Sam whose in a chemical engineering REU. We met him because he was walking around the apartment complex playing a melodica and we were curious at to what the instrument was.







Sunday was what I like to call my Recharge Day. I woke up early to workout. Then, when I got back I finished up some editorials I had to right for a conference I recently went to. After I finished writing, I cleaned for a bit and made my first ever meal prep which was really fun and exciting

for me. I love food (and making it) but I knew it would be easier for me to stay on track (healthy eating wise) if I premade some meals! So I tried it out, and I am pretty happy with the results!











Sophia invited me to go to the library with her; So, I went for about an hour before I finished reading some articles and decided to go back to the room. Later that night, Emma, Kate, and Natalie made the cohort lasagna, bean dip, and a veggie platter. It was all really



good food; I'm really enjoying these family meals and hope they become a regular occurrence. After eating, the group went to see Wonder Women at 10 pm and didn't get out until 1 am. It was worth it though; I really enjoyed the movie and I didn't even realize we had been at the theater for that long. My night ended at 2 am when I finally fell asleep.





Austin's new hair(beard) cut really fit in with the theme of fathers day

xx britt

Posted in Uncategorized | Leave a reply

TIME IS FLYING!!! | Day 16(britt)

Posted on June 19, 2017 by bhill35



Today, I woke up & took the bus to where construction on our road begins. I took a little bike break because working out legs really puts a toll on your biking ability. However, I forgot about the little construction project going on and didn't realize it would affect our

normal bus stop. It ended up being for the better though because now I pass Caribou Coffee every day(not so great for my wallet though).

Today is our independent work day; So, I started off by reading and taking notes on a research article. After I finished that, It was time for our lunch lecture. Today our lecture was about spatial displacement in virtual reality environment. Our speaker showed us his teams research on spatial displacement depending on what type of HMD(Head Mounted Display) a participant used. I liked that we got to hear about his research and see the graphs of how different factors changed the participant's spatial perception. I also learned quite a bit about spatial displacement which was nice considering I didn't know what it was before hand.

After our lunch lecture, We had a craft of research session about citations that taught me more about citations than I've learned in all my years of school. I feel like in high school, we were just told to use MLA, 12pt, Times New Roman, double space(etc.), and were never given a detailed explanation as to why, what the other types of citation are, and how they're used. Luckily, In this session I learned just that; The information, In return, made me more appreciative of the different citation styles and more excepting and ready to learn them. Funny how being informed can change your perception.

After CoR, we had more independent time; I spend this time blogging and practicing some SolidWorks. Then eventually it was time to leave for the day.

I walked back to the apartment and made quesadillas and guacamole for dinner. Then I blared my music and had a good ole jam sesh because I was the only one in the apartment and it was really fun.

The rest of the night wass kind of a blur; I rearranged my room a little(ok a lot, I basically moved everything), edited my conference applications more then surfed the web before calling it a night.

xx britt

Posted in Uncategorized | Leave a reply

Gym buddies & An Intro to SolidWorks | Day 15(britt)



Posted on June 15, 2017 by bhill35

Day 15

Yesterday, I woke up to an unusually dark sky. This could only mean one thing

RAIN.

(Actually, it could mean many things but rain was definitely the most plausible)

As a rain lover, having the morning start off with rain put me in a really good mood and gave me the extra motivation I needed to take on Maya. Although, The quick stop at Caribou Coffee for a turtle latte with an extra espresso shot also probably helped.

We started off our Maya class by reviewing textures and different types of metallic finishes that help give objects a more realistic appearance. However, like I said in my previous post, those steps were kind of advanced for me. I feel like I am still getting the gist of all the buttons and controls.

However, the way Maya is set up, I think if I understand fully where all the buttons are and what they do, I will have a much easier time creating objects that look the way I want them to. I'm just at the slow part right now: learning all the functions.

Luckily, In the group talk we had with Stacey, she mentioned that we won't be using Maya in our group and will be focusing more on Solidworks and Unity. I still am definitely going to try and learn as much Maya as possible, but It's nice to know we aren't using it in our project(sorry Maya).

After our Maya time, we did the usual break time on our own then lunch at UDCC.

When lunch ended, I used my allotted 30 minute blogging time to catch up on blogging and after this post, I'll be all caught up! Then we started our first Solidworks class with Alex.

Now, I must say I really like Alex's teaching style. He doesn't go too fast, shows us how to use the software by actually demoing it, and took the time to consider things that we might not learn in a typical Solidworks tutorial! Now I'm not too worried about learning Solidworks. Also, this program uses modeling AND C++. So I'm excited to see how SolidWorks and C++ will come together to make virtual worlds in the future.

By the end of the day, I was feeling pretty sleepy and was ready to call a quits on my gym plans and head straight to bed. However, I

asked Sophia if she was going to the gym and she said she was. Then, I thought: If Sophia can work out after a long day then so can I.On our walk back from the gym, Sophia and I talked about the many benefits of working out with a buddy. Here are a few we mentioned:

- 1. Less likely to not go if the other is going
- $2. \ \, \text{Likely to stay longer if the other is not done working out} \\$
- 3. Motivation to stay consistent

Also, Sophia said I influence her to eat fewer sweets (probably because I'm not really a sweets person as it is) and our buddy system is a win-win because having a partner continuously motivates me to keep working out!



After the gym, I went back to the apartment and finally did my IRB training. I say finally because I suck and didn't do it when I was

supposed to. Then I made dinner. At the gym, I checked my weight and I gained about 6 pounds from the last time I weighed myself (which was at the doctor's like 4 weeks ago) so I think I'm going to make a solid effort to eat healthier while I'm here. Not necessarily to lose weight, just so I don't gain more. Though, I'm not sure if the weight I've gained is muscle weight or fat... I've been doing a lot of weights so the weight could very well be muscle. Too bad I can't know for sure. Either way, eating healthy seems like a good next step regardless of where the weight came from.

After dinner & IRB training, I started some applications for conferences. Right now I am applying to the Grace Hopper Conference, and one science one (I cant think of the name right now). I might apply to one more but I don't want to sign up for too many because I know I will be pretty busy when school starts back up. Speaking of school starting back up, I am actually really excited for my sophomore year of college. I think that 'ugh I'm so over school & need a break' phase everyone goes through at the end of the school year is starting to fade away and I am finally ready to get back to learning. Luckily, I have plenty of learning to do at VRAC that will hold me off until I get back to Georgia State.

After I finished generally writing the applications, I gave myself some free time, then called it a night.

Or so I thought

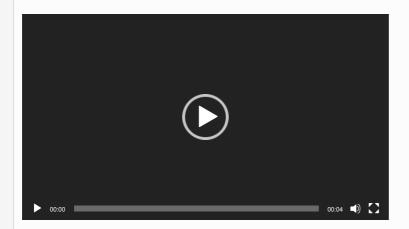
I was laying cozy in my bed about to fall asleep when I heard "Brittney.."

"Yes?" I replied. It was Sophia.

"We're going outside"

I had no idea what for but I still had a little energy left. So, I was down. Turns out the who gang was outside doing this weird whipped cream trick where you hit your arm and the whipped cream flys up and lands in your mouth. It took me a couple of tries but I eventually successfully did the trick.

Here's a failed attempt because it was the only one saved. Enjoy!!



xx britt

Posted in Uncategorized | 2 Replies

Lunch Lectures & Making More Goals | Day 14(britt)



Posted on June 14, 2017 by bhill35



Today was another independent work day. I started the morning by updating some blog post because lately, I have been behind on that.

Then, I worked on learning Maya for about an hour before our lunch lecture.

Our lunch lecture was from a mechanical engineer who was really smart, to say the least. I know my major is in a stem field, but I am still kind of new to all the tech jargon and his presentation was definitely jargon-heavy which made some parts hard for me to understand. Regardless, his work was really impressive. His team (I think they're called IDEA) creates virtual hearts that match the ones of patients with heart problems. They use these virtual hearts to see how a patient's heart would react to different types of therapy before actually doing it on the patient. They are the first in the field to do this type of work and I found that really remarkable.

During the lecture, I was taking notes on all the things I didn't know; After lunch, I looked up the words and phrases I wanted to learn.

Then, I took definitions for words and other facts about what the engineer was talking about and put them into a Quizlet (online flashcard) for review. So hopefully I'll know some more jargon by the end of this week!

After the lunch lecture, we had a meeting with Stacy about the direction of our project and we talked about our lit review. From the meeting I got some next steps:

- 1. Read 10 research articles/have notes and questions by next meeting
- 2. Practice my SolidWorks & C++ (the main programs my group will be using)
- 3. narrow down our product of choice(AR/VR)

With those tasks, and my own personal goals, I know this week will be pretty busy!

After work, we did light painting in the auditorium and it turns out light painting is a lot harder than it looks. Then again, the reason it was hard could have been because we had 12 people trying to each draw an individual picture in a comparatively close space. We still got some pretty good pictures and it was a fun bonding experience with the team for sure!!

Here are some of my favs:



the planner is packed for the rest of the week





P.S. My writing was the "Hi Mom" and the "xx britt"

I left my bike back at the apartment today, so I walked back to the apartments after light painting. Later that night, I made dinner and learned about GPUs, CPUs and core processors till I eventually got tired and fell asleep.

xx britt

Posted in Uncategorized | Leave a reply

A Stressful First Impression of Maya | Day 13 (britt)



Posted on June 14, 2017 by bhill35

Day 13

I got to the VRAC lab at 9 am for our first lesson on Maya and, at first, I didn't know what to expect. I have never used any type of designing software so I wasn't sure if it was going to be easier or harder than coding for me. However, now I know..

This software has been a lot harder to learn than coding.

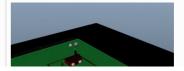


We started off by learning some of the basics of Maya – then we were given our first practice assignment: creating a farm. After about three hours of working on the farm, and countless sighs of frustration, I looked around to see that literally everyone was waaaay ahead of me. Then I started to mini-panic.

What was I not understanding?

I stopped and took a stroll around the outside of the VRAC lab for a quick breather then came back in and tried again. My farm did get a little better, but again, it just seemed to come so naturally to everyone else;

This was stressing me out a little. Then it hit 2 pm; It was time to add more knowledge on top of what we learned and I just couldn't keep up. So, I decided to take notes on the slides he was teaching but stick with learning the basics because I was definitely not ready to advance any further.



Soon, it reached 4 pm and we only had an hour left until we could leave. This is when Emma came over to me and expressed her frustrations with the software, and to my surprise, they were similar to mine. I looked at her project and it seemed like we were on the same level of struggle. We talked about meeting up outside of work to work on it together and this, in return, made me feel a bit better about the situation.



At 5 pm, it was time to leave but I realized I had worked on Maya the whole work day and still wasn't at the level I wanted to be. So, I decided at that point I definitely needed to work on learning Maya outside of our allotted time at work.

DISCLAIMER: Now, I know I might sound a little defeated in the beginning of this post (probably because I was feeling it at the beginning of the day) but nothing worth having comes easy. Even though my major is CS, I've always been into expressing my creativity through technology and I think Maya can help fuel my creativity even more than video editing (something I really enjoy doing) so I am willing to put in the work to learn it! This is just a small setback – but I know I'm onto something great!

Sophia, Sushi and I went to the gym after work then to bubble tea(I wonder how much money I've given TJ Cups since I've been at ISU) then back to the apartment.

After dinner, I downloaded Maya onto my computer. This software (along with the other software Autodesk provides) cost 3,000 dollars but if you're a student you get it for free! The software took a while to download, so I surfed the internet waiting for the download to complete. This turned out to be a bad idea because I quickly got tired and ended up going to bed at around 8:30-9pm.

It's ok though, I got a good nights sleep for sure.

xx britt

Posted in Uncategorized | 1 Reply

Cheers To The Freakin Weekend | Day 11 & 12 (britt)

Posted on June 12, 2017 by bhill35

Day 11 & 12

Weekend 2 was as jam-packed as the last!! So let's start from where it began:

8 am:

We were up bright and early for a 40-minute drive to DesMoines for the rope course! I am not afraid of heights and consider myself somewhat of a daredevil, so I was really really excited to climb swing, and belay(all which I got to do a lot of)



REU COHORT 2017!!

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Fetus Dogs & Celebrating Birthdays | Day 10 (britt)

Posted on June 12, 2017 by bhill35



Day 10 🛍

So today's Friday (actually today's Monday... I forgot to post on Friday but that's beside the point) and it is also Alfredo's bday!

SOOOO HAPPY 20TH ALFREDO (if you're reading this) lol

I hope it was a good one.



Today instead of learning more C++ we just reviewed it which I was very thankful for...



I still have a lot I need to learn about C++; During our review, I focused mainly on learning inheritance and the different types of classes. I definitely need to practice more on my own though.

We went over a big no-no of research today. **Plagiarizing**. All my academic life, I've been told not to plagiarize (so it's like common sense to me now) but what I did not know was all