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

SPIRE-EIT|2019

Bittersweet Chocolate August 2, 2019 Sina Crosby Walton

and learned a lot. I am going to miss my little desktop set up here in the middle of VRAC it has surprisingly made me so productive most all of the days I've been here. I'll miss the grad and Ph.D. students that came to mingle with us and check in on us and the laughs we all shared every once and a while. It has overall been a really great summer and I wouldn't trade the experience for the world. I am taking away a new interest in UX Design and UX research which is very exciting for me. I will continue to pursue this interest back at my home school to see if it is something that I would like to pursue as a profession. I am so very thankful for having this opportunity thanks to Stephen, Eliot, and Tiffany.

Signing out for the last time Nina Crosby Walton Mid-College crisis So I'm having a bit of a mid college crisis. It started yesterday when I was researching more about UX design. A career in UX seems so cool and combines my love for design and technology. Also, I would be less likely to starve if

Today is our last day at VRAC. It's really bittersweet because I've made a lot of awesome connections this summer

the market crashes because everybody will continue to use technology but the rate of building buildings will shrink drastically. It's kinda a double plus. Honestly, I am totally freaking out inside because I'm so confused, I don't know what I want to do anymore. I was reading more about what architects do on a daily basis and it's like filling out documentation and drawing blueprints. I don't know if I want to do that exactly

Update on my crisis: I did get to talk to Mindy (she's awesome) about UX Design and UX research and she gave me a lot of clarity and helped me think through my options and what to do next as far as which classes to take and $developing\ case\ studies.\ So\ my\ whole\ dilemma\ downgraded\ from\ a\ crisis\ to\ just\ a\ concern.\ Moving\ forward\ I\ will$ continue to major in Architecture because I am very happy with my major and I still love architecture. I will apply to some UX industry internships next summer and spring to truly test if it is something I would like to pursue further.

Uncategorized Leave a reply Finish line in sight 🖮 July 24, 2019 🙎 Nina Crosby Walton I'm back from a small hiatus. To recap last week, there wasn't much going on other than data collection for our

teleportation project. I would have to say this is my favorite part of the research process. You actually get to see all your hard work in preparation pay off. Coming into this week I knew it was going to be mostly just tying loose ends with data collection, the paper, and the poster. Everything is looking good 7 weeks later... July 12, 2019 Nina Crosby Walton

Monday

Monday was a monday. We did get to watch a thesis defense, which was interesting. It felt a little awkward, like we were intruding but it was on our schedule so it's not like we weren't supposed to be there. Today was also the second Ethics class but I went to an all campus REU talk on writing grad school personal statements. I wish I could've went to both but I thought I would get a little more out of the grad school talk today because it was only offered once and there are 3 ethics class meetings.

Lecture was replaced with Craft of Research so no cool speaker but we did get Jeff's pizza for Lunch, it was very good. Wednesday

Thursday I spent this morning making edits to our research paper in Cybox. I like editing papers for some reason (a lot more than actually writing them) so it wasn't that big of a challenge for me. I'm really glad the environment is 98% done. The only thing left is the animation of the cars which will require me to script in C#, I still feel very very blind in the world o

like that class. But that's about it.

coding but I'm sure the Unity forum and some youtube videos will help me get to where I need to be. For our Luncheon Lecture today we heard from Jon Kelly, who happens to be our faculty mentor in the teleportation project. It was really nice hearing more about the things he does in his past and the research he does now in his lab. I find the field of spatial cognition very interesting because of its relevance to the field of architecture. The afternoon consisted of presentations of our MCA project. For me it went okay, I can always do a better presentation, and I feel like I am not as strong as a presenter and speaker as I would like to be. I like to give another big thanks to Alex ("the 3d printing god") and Kate for being so awesome in the 3d printing deep dive. They put up with 2 $\frac{1}{2}$ weeks worth of random questions and comments from me.

I'm really glad it's Friday, it's been a very long week. Tonight some of my suite mates and I are going to paint pottery ■ Uncategorized □ Leave a reply

Friday

Tuesday

I found the Gender Mag video pretty interesting. The content about personas and designing scenarios was along the same lines as a book I read called Design is Storytelling (which I highly recommend checking out) I read a couple of weeks ago. The book discussed the use of personas and scenario making in the design industry along a similar lines as what was talked about in the video. I would be really interested to see additional studies in how gender mag could impact other industries. The video ignited some thinking on my part about how the use of scenarios and person could add to the architecture design process to create better buildings and spaces designed with a user focus.

Uncategorized Leave a reply Making Progress Monday and Tree Tuesday 🌳 🌲 🌴

have to figure that out tomorrow.

a good night.

Nina Crosby Walton

Water Ice

June 21, 2019 Sina Crosby Walton

Looking forward to session 2 this evening

June 20, 2019 Rina Crosby Walton

Signing off for another day, Nina Crosby Walton

Uncategorized Leave a reply

Answer to the title: "Today is humpday"

Cans without open tab

HCI- Bad User Design 🎉 June 14, 2019 ... Nina Crosby Walton Nintendo Switch individual controllers

🛗 June 17, 2019 🙎 Nina Crosby Walton

Mondays

☐ Uncategorized ☐ 1 Reply

Makerbot Monday 🖮 June 24, 2019 🙎 Nina Crosby Walton

iii July 2, 2019 Sina Crosby Walton

Gender Mag Reflection 🖮 July 3, 2019 🙎 Nina Crosby Walton

I continued making progress on the new unity environment for our teleportation project. I added a playground, trees and sidewalks today. I am thankfully almost done with adding everything I want to add (asset wise) so I can start working on finishing touches tomorrow. I wont be able to get the cars to animate in time for tomorrow's meeting to show, but I will at least have all the environmental fixtures I want. I am having a bit of trouble making the pond for one corner of the park. I looked on the unity asset store and turbosquid and they don't have a decent looking pond so III

Teleportation Tuesday and Warm Weather Wednesday 🛗 June 26, 2019 🙎 Nina Crosby Walton

we can get some animated waves for the water and refine a few other aspects.

We had a hiking adventure at Ledges State Park. It was really fun and I am glad I went. Boca (Abby's doggo) even came along to keep all company and doubled as our protector dog. Wednesday was mostly a MCA project day. I am developing a 3D printed architecture model that can be snapped together. Examples of some applications could be a module that snaps to other modules creating a building system or a building model that splits into horizontal or vertical section cuts to see interior components. I am struggling quite

Well I love the idea. Its an idea with a lot of potential and I would be able to build upon the idea for future research projects. I also have a really cool idea for my thesis: 3D Printing for augmented reality building design and analysis! Mic Drop. Nina Crosby Walton

Today is Friday, Yay Nina Crosby Walton **Grad School Resources**

During Lunch, we had a really great talk with Mrs. Diana Sloan about the resources that are offered for graduate students here at Iowa State. I found the information she gave us so very informative because it made me curious about the kinds of resources my home college offers and how I can take advantage of them more when I get back The information she gave can also be the same at other graduate schools I am looking at, hearing from her taught me to look for and take advantage of those resources that are set in place.

We had a lot of time to work on our projects today. I worked on designing some ideas for the teleporting interface and researched information on directionality characteristics for our included avatar. Moving forward I am tasked with creating some mock-ups of a few different environments for our teleportation experiments. Today I also worked on finishing up updates to my resume. I'm really happy with how it looks thus far but still working towards making it look

Continued working in Unity today. We learned more about scripting objects so they are able to preform different commands such as turn the light on and off. In the free time during lunch I read a chapter in my book on Architecture and Interaction. It was a really good chapter and talked about implementing HCI design framework into the architecture design process After lunch we have more Unity and we get to chose our deeper dive that begins on Friday Nina Crosby

"Mike Mike Mike, What day is it Mike?" -Geico

Today kicked off with our first Unity learning session. I really enjoyed working with Unity this morning. The interface was easy to follow and understand and I was able to draw connection between Unity and Maya pretty quickly. I successfully imported my model from Maya and I also downloaded some trees from Sketchfab to add to my scene replacing my trees made of platonic solids and cylinders. After the Unity session this morning I went to Professional Workshop on Planning Research with REUs from other programs from across the university. I learned a lot and I am really glad I went. I plan on going to more of the Professional Workshops in the coming days and weeks. Something the instructor talked a little bit about was the importance of displaying data in a creative way for our project research poster. I'm looking forward to seeing how I can work with the data in my project to make the information and data analysis be perceived more clear and creative through graphics. I really enjoy working in Adobe illustrator and making cool looking graphics so it should be fun for me and a great way for me to contribute to the final presentation.

Although created by a large gaming company that has been creating gaming consoles for years, these controllers for the Nintendo Switch should be shamed for its bad user design. The Nintendo Switch has an option to play single player with a large user console or double player by taking the two controller pieces off of the sides of the handheld console. I'm not going to lie that was an ingenious idea but was executed horribly. As individual entities the two controllers are not ergonomic and are very uncomfortable to play simple games such as Mario cart. A users fingers do not lay comfortably over the buttons and the joysticks

Del Monte

esh Cut

NET WT 50 OZ (3.13 LB) 1.42kg

This is bad user design that has been going on for years but has such a simple fix. The problem with cans like this is, is that its just not very convenient for the user. Some companies have added a pull tab that helps users open the can without an external tool such as a can opener



Nina Crosby

thiNk

🛗 June 11, 2019 🛮 🚇 Nina Crosby Walton

this in your head, because if not y 'all probably think I've lost my mind.

☐ Uncategorized ☐ 1 Reply

the path of our project and moving forward

Uncategorized Q Replies

my time here.

Today C++ was more like C-🛗 June 5, 2019 🙎 Nina Crosby Walton

architecture.edu

through my study of architecture and design at Washington University. I've already thought of some cool ideas that I can't wait to share with my NOMAS chapter Uncategorized 2 Replies **Putt-Putt Golf**

In session 5 of the C++ crash course we were taught inheritance, which at this point is way over of my head. But I took the time to go back through the previous sessions information to reinforce the concepts we previously learned after the assignments when I was super duper lost. I have also been finding the tutorials page on the cplusplus.com website to be very helpful. The website does a great job at breaking down concepts even further. I'll continue to go through the tutorials during our free time. On a happy note, coding in general is getting more comfortable for me as far as the interface, typing, and the basics. But the content keeps growing faster than I am growing. I think I'm going to be the tortoise in the childhood story the Tortoise and the Hare in this situation, slow and steady wins the race Programming and writing code seems to be a lot like putt-putt golf. You aim for the hole and you tap colored golf ball towards the target with the putter stick. Rarely so you get it in the hole on the first try but you continue to reorient yourself to get the ball in the hole, hopefully getting closer and closer. When coding the same thing seems to be happening. You code something and you shoot for it to run, you'll get error messages back sometimes, you fix them and you run it again, the cycle repeats until you are successful. (side note) Code is also multi-colored just like the golf alls you get for put-putt. This analogy came randomly to me this morning during class. I hope you guys can picture

 $\label{thm:medial} \textit{Media Lab you may ask. Well...} \textit{ the MIT Media Lab works on projects that intersect the fields of biology, design, and \textit{Media Lab you may ask. Well...} \textit{ the MIT Media Lab works on projects that intersect the fields of biology, design, and \textit{Media Lab you may ask. Well...} \textit{ the MIT Media Lab works on projects that intersect the fields of biology, design, and \textit{Media Lab you may ask. Well...} \textit{ the MIT Media Lab works on projects that intersect the fields of biology, design, and \textit{Media Lab you may ask. } \textit{ the MIT Media Lab works on projects that intersect the fields of biology, design, and \textit{Media Lab you may ask. } \textit{ the MIT Media Lab works on projects that intersect the fields of biology, design, and \textit{Media Lab you may ask. } \textit{ the MIT Media Lab works on projects that intersect the fields of biology, design, and \textit{Media Lab you may ask. } \textit{ the MIT Media Lab you may ask. } \textit{ the$ computer science, architecture, and engineering, all fields that I love and have high interests in

My dreams and goals for the future are to establish and a multi-faceted design firm, work at NASA as a Space Architect, or Disney Imagineering as a Creative Design Executive to name a few of my goals and dreams

🛗 June 6, 2019 🙎 Nina Crosby Walton This morning was great. Because we had nothing really scheduled this morning from 9-11 I really appreciated that I was able to work on the problem statement some more and read some additional research publications on spatial This afternoon we had our second insta illment of the luncheon lecture series. We heard from Evrim Baran today about her work and research in the overlap of Education and Human Computer Interaction, I found it really interesting. Her presentation reminded me about a project that I worked on my junior year of high school designing new learning spaces for the SchoolsNEXT design completion. In the competition we were tasked with designing new learning spaces for a community space or school we could relate to. That year my design team and I redesigned Middletowr High School, where a few of my teammates attended high school. The goal was to design or redesign a learning environment and make it better. We added this really cool learning wall at the front of the school that is interactive large courtyards, and lots of spaces that invite cross-subject collaboration. It was something that I was pretty proud of because I learned a lot. We took first place at the national competition that year Here is a picture of the competition with our award and project.

Update on baking that cake. I did end up making it last night. It was really good. The flavor was Strawberries and Cream and I paired it with cream cheese frosting. It tasted really good with vanilla ice cream too. Yum!

On a side note, through today, I have continued to get as many books and article pdfs that I can about design, biomirnicry, and emerging technologies through the IA state library website, I think I have found ~19 book thus far on topics from smart cities to space architecture. I'm excited to start reading! I think I'm going to make a small cake tonight too. **Luncheon Lecture, Group Pictures, and Barbecue** June 4, 2019 Nina Crosby Waltor Today was a really long day because we did a lot of different things and covered a lot of ground. We started the day with a Craft of Research lecture where we learned how to write a craft a problem statements and we learned about the purpose of the IRB. For lunch, we had our first Luncheon Lecture with Eliot Winer, the Associate Director at the Virtual Reality Applications Center. He was such an amazing speaker, clearly very passionate about what he does. I am really looking forward to possibly meeting with him to hear more about his academic journey.

After lunch and our first luncheon lecture, my project team and I meet up with our grad mentor and walked over to our faculty mentors lab, saw the lab space, and took a look at the different tools we could work with. Following our small research lab tour, we took pictures around campus with Paul and we ended up walking what felt like miles. But we did stop at Starbucks in Campustown halfway through so that made the experience a little better because it was very hot

We ended the day with a barbecue in Ada Haven park. Some of my peers did geocaching but Kelsey and I just ended up sitting on a swinging chair by the lakeshore and just talked about our freshman years. Tomorrow we are

back in the lab starting bright and early with our C++ course.

This afternoon we have a project meeting which I'm particularly looking forward to because we will be talking about

The first thing we started with once arriving to VRAC today was session 3 of the C++ course. At this point in the course I am feeling a little discouraged because I am struggling with grasping the details as well as the big picture of the C++ programming assignments. I'm not even sure what the things I type fully mean. Despite all of that, I am staying hopeful that a lightbulb in my head will go off eventually. It's just pretty complex content for someone with very little to no coding background, like myself. One thing that does make this experience a little better is the fact that our instructor is very patient and tries his best to explain things to me and others that may be struggling a bit as well. For lunch some of us went to Jeff's Pizza in Campustown and the pizza was really good. We got the very modestly priced lunch special which consisted of 2 very large slices of pizza and "pop", as they call it here. It was very filling and tasty. I definitely want to go back to the Campustown area and eat at some of the other eating places they have during

The morning programming session did leave me with a question on my mind that I would like to put out there for all if any of you have some good answers for it. I will also be conducting some independent research on my own to find What are the different things you can do/ make with each of the programming languages (i.e. Phython, C++,

Overall this weekend was great ** The true sign of intelligence is not knowledge but imagination.

Saturday, June 1st, my peers and I went to Val's bike workshop where we were able to help Val organize the workshop and pick out a bike that we can use for the rest of our time here at lowa State. I picked out this really cool vintage brown Belgium bike. After a couple of hours at the workshop, we were then able to ride our bikes back to campus, about a 2-mile ride. It was a great opportunity to see more of Ames and mid-western residential

Today was a relaxed day. Kelsey, Roselynn, and I went to Walmart and picked up some last minute items for our suite We even used Cyride to get there. I feel like I'm getting a hang of the bus system now. I also re-watched my faculty mentor's XR advance video to brush up on the project material and start to develop some ideas for possible project directions. On the same website that I watched my faculty mentors video, I also found another video on Facilitating Accurate Spatial Perception in Immersive Architectural Environments by Victoria Interrante, PH.D. I found the vide very interesting because it talked about VR in architecture, my field of expertise!

Funded by NSF NSF Grant #1757900 Previous Years of SPIRE-EIT We were supposed to have our MCA project presentations today but nobody really showed up because invitations were never sent out so it was rescheduled for Thursday. Very thankful for that, I get another day to prepare. Luncheon

Lucas Wright Nina Crosby Walton Roselynn Conrady

Syema AiliaTiger JiVrinda Shroff

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Abby Boytos on From a Great Abby Boytos on Tick Tick 1. Abby Boytos on Bitter Meta Site Admin
 Log out Entries RSSComments RSSWordPress.org Wednesday was a bit of a blur. I do remember the Ethics class that we had that morning, probably because I really

Since my mom is still in town we went to bachelorette cycle last night at the gym. It was really fun, my legs ache from that 2 hour cycling adventure but t was still very fun and I don't regret it one bit. I had Cold Stone ice cream after, it was Another day goes on as I continue to add and refine the new unity environment. When looking at the park this morning it was looking a little bare and naked so I decided to add a ton more trees to make it more alive and lively. Hopefully Tuesdays and Thursdays are usually really "chill" or in other words very open and flexible. This Tuesday was like most in that sense. When I came in I worked continued to develop ideas in the form of sketches to be able to have a visual aid at our Tuesday project meeting. I worked on thinking through what a new environment would look like for our discordant and partially discordant teleportation testing. Some of the ideas I have so far are a museum space, and gallery or central park theme. I really took the central park theme and ran, I'm not sure why that one stood out most but I made a small map of that idea and annotated it with my key ideas. I also drew up some concepts for the avatar interface. One has a tool to be able measure distance with a tape measure like feature on the ground as a shadow of a bit on designing the snap connectors or finding snap connectors that could work on OpenSCAD. We shall see how In the 3D printing deeper dive this morning we learned about the types of problems that can arise with printing. Alex took apart some of pieces of the Makerbot printer for us to look at and examine. We also began to talk about our MCA's (Major Course Activity) So here's what I'm thinking as far as that project, I would like to have a physical model of a building that is able to split apart into longitudinal and longitudinal section cuts to be able to see section views of The 3D printing deeper dive is great. We haven't started using the machines just yet but we learned so much this morning about the history of 3D printing and some associated terminology such as additive manufacturing and rapid prototyping. I am trying to soak up all the knowledge I can from Alex Renner, our instructor, because he is extreme knowledgeable on additive manufacturing. Although he is not an expert as he likes to say because no one can be an expert in 3D printing but he sure seems like one.

Humpday- that day in the middle of the week that feels like a hump because tomorrow begins the countdown to the

I woke up and got to the lab just a tad bit early today to print out some readings that I found last night on some ideas for the direction of our project. I found some really interesting articles to look over that I actually enjoyed reading. They weren't as hard to read as some other ones I have looked at, yet so fruitful with information. I'm currently feeling a little distant from my team because they seem to be working on developing project ideas together before meetings, it happened at our first meeting last week and I'm bringing it up now because I just am a little concerned it might have happened again, as our next meeting approaches in an hour. Its okay and I guess nothing is wrong with that but I just rished at some point they would've invited me to brainstorm with them maybe I could had some cool ideas to build on theirs. Maybe its because of convenience, they are in the same suite together and I am not. But like I said I don't mind much but it just kinda makes feel distant moving forward. On a side note, I'm not sure if its just me misreading people but I get a very competitive vibe from some of my peers. Its starting to get to me a little because it indirectly kes me feel inferior, constantly question myself and just overall not make me feel good about myself. I know it may not be intentional but I can't help the way I react to certain things some times. I'm learning to try to shake it off and to Our afternoon consisted of our Luncheon Lecture #3 by Bernard Canniffe a Graphic Designer. His lecture was really inspiring. He talked about the projects he has done with his students from around the country to connect institutions with their neighboring communities. It has made me contemplate what I could I do to help the community in St. Louis

Nina Crosby Uncategorized Leave a reply Week 2: Day 1 The start of week two began with the first instruction session of C++. I was really nervous about starting C++ because I have not coded extensively before. The morning session went very well and was not as complicated as I thought it was going to be which I really appreciated. In the application visual studio, I created my first application which was a pop-up box on the computer screen that said "Hello Word". When we were given a little free time I changed mine to "Howdy World" just for kicks. I'm looking forward to the afternoon session because we are going to go a little more into the language. I'm excited to see where learning this programming language will take me I'm just really curious of where the bounds of creative lie within what you can do with the knowledge of programming **First Weekend** 🛗 June 2, 2019 🙎 Nina Crosby Walton This weekend was such a beautiful weekend, the sun was out and there was a nice breeze all weekend. Yesterday

Sunny Day May 31, 2019 Nina Crosby Walton Yesterday Afternoon we had a scavenger hunt to find buildings around campus by facts presented to us. I personally found it very informative although my legs did not agree, they were so sore this morning from all the walking we did but it was a lot of fun so it's okay. We also met Boca during the scavenger hunt which is Abby's dog and he was super fun to be around because he had a ton of energy. Yesterday I also started to

I am really looking forward to the Maya and Unity courses in the upcoming weeks! Uncategorized Leave a reply Post #1 May 30, 2019 Sina Crosby Walton Looking forward to using WordPress to document my time here at Iowa State and also looking forward to warme weather and less rain hopefully in the upcoming weeks. Uncategorized Q 2 Replies

Initial Project Meeting may 30, 2019 Sina Crosby Walt It was really great meeting the amazing people that I will have the opportunity to work with over the course of this summer it made me even more excited to start learning more and brainstorming ideas for our project. Although, I am a bit nervous with working with a team and trying to communicate my ideas clearly and have them heard but my teammates seem really nice and cool so I'm sure I will be fine.

read a new book on Architecture and Interaction, its basically about how Architecture and Human Computer interaction can come together, that I am eager to continue to read because it looks like a great book to start getting research ideas for my senior thesis in 3 years. The biggest reason for my interest in applying to this program was to learn as much as I could about human computer interaction and then apply the knowledge learned into forming more targeted research in my field of architecture. I was really excited this morning to find out that the sun would be out all day today and we would have temperatures and so far, this day has lived up to my expectations of this morning, it is a beautiful day. On the way over to Howe Hall this morning from our apartment we passed the horse barn and they had some of the horses out roaming the gated fields. I really hope that one day I am able to go up close to see them and pet them because I just have a thing for horses. When we got to Howe Hall we took the Myers Briggs Personality test which was enlightening to say the least, we also learned about how to take advantage of the IA State library system, and we got to experience some of the VR and AR tools in the lab. All the technologies were super cool but I would say my favorite was the C6 because it was a total immersive environment and I could see direct correlations of how to use the technology in the field of architecture. We had our first project introduction meeting today where we met our faculty members and our grad student mentors.