Shea Brown | REU | 2012



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Shea Brown

Posts from me

Time to... Say Good-Bye

Posted on August 2, 2012 by Shea

It has been several days since the last time I blogged. I've been sick on to of being in crunch mode; blogging has constantly eluded me.



These last couple of weeks/days have all come rushing up so fast. In terms of the project, we made a great deal of progress in the last two weeks. Personally, I've become much more comfortable with Unity and add/editing game scripts. I intend to continue tweaking the game demo until it is time to present, but it is pretty much going to be presented in its current form. I was not able to code an actual battle with the polymer enemies so I decided to implement an "enemy museum" of sorts. The player will walk past displays of in-game enemies with descriptions. In summation I was to achieve the following:

- -Create a terrain with a physics collider that prevents the player and other gravity enabled elements to falling infinitely
- -Apply the proper physics collider to the player model so that it does not fall to infinity
- -Group and arrange game objects so that they can be properly scaled, this is especially important when applying gravity so objects do not appear "floaty" or fall unrealistically fast
- -Modify parallax script and apply parallax motion to background objects such as mountains, hills, etc. This gave the illusion of different distances of objects in the background
- -Modified player controller script so that the player's motion is limited to translation on the x-axis and jumps
- -Placement objects in immediate background
- -Creation and application of skybox

We had originally hoped to have many more features planned, but after finally receiving the software and viewing game code, we had to significantly adjust our goals. One major setback that I wish I could have overcome was the animation situation. The plugin makes animation virtually impossible, as a result there is no character animation.

In all, I am happy with the results and am glad I was given the opportunity to be part a research group in this amazing program. I've gained some invaluable skills and met very interesting people. Hopefully we will keep in touch. Bye for now!

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Final Lap

Posted on July 26, 2012 by Shea

The trip to the Science Center and Principal in Des Moines was great. The talks at the Science Center were very interesting. I was surprised to learn that it was run like more of a business than a service to the community, however. The planetarium was pretty cool although outdated. Principal was another unique experience. I appreciated the art and environment of the office. The guide gave vital insight into the process of accessing usability. To top things off,

the roof top lunch was great.

We are definitely in the final stretch of the program. Today we did quite a bit of group planning on how we will delegate the remaining tasks. After the paper is more formulated, I will return to working on the Unity Demo.

Nine other interns and I were part of a social media focus group this afternoon. The questions posed sparked interesting responses...

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Crunch Time

Posted on July 24, 2012 by Shea

I feel that we all are in crunch mode at this point in terms of our projects. John and I had a little Unity help session and I was able to resolve quite a few key problems within minutes. That makes me very relieved!

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Monday Rises

Posted on July 23, 2012 by Shea

Saturday we saw The Dark Knight Rises. It was an excellent movie, one that I know at least two of us were anticipating all summer. We may have to do a repeat this weekend...

Progress in Unity is coming along. I've decided to spend more time studying Unity examples that use similar mechanics.

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Relief

Posted on July 20, 2012 by Shea

I awoke this morning to news of the Aurora, CO shooting. My heart goes out to the victims and their families...

I made quite a few good advances with the game today and do not feel nearly as lost as I previously had. I'm slowing learning some aspects of javascript, mostly through trial and error. Today, I got the character-following camera to work properly in the desired position and got a prototype of the GUI to display. Hopefully I can create an animation before the day is out.

Journal club was a good discussion. I had never gave much thought to year round school. Although I would probably not recommend it, it did have many valid benefits.

This weekend=Dark Knight Rises, rest, rest, and food

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One step forward, Two steps back?

Posted on July 19, 2012 by Shea

Today in unity, I experimented with built in Unity scripts for controlling the players motion. While it was good to see the character actually in motion, the motion was all wrong. For whatever reason, the controls cause player to spin instead of translate. I was thinking it was something I could easily adjust in the code, but upon opening the js, i found that I had no idea how or where to start.

At this point I would say I am in pretty intense need of help with this project.

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Please, No Cameras

Posted on July 18, 2012 by Shea

Just joking. Today we were interviewed on camera. I suppose I was a little nervous leading up, but I believe it went fine. I did have slight headache coming in this morning and the shining lights didn't help much.

Last night was movie night; Inception was great for the 4th time. However, I don't think I will be up for game night tomorrow.

Today is Unity and more Unity. I am still working out the mechanics of the player's motion. Progress is being made!

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Ughhhnity

Posted on July 17, 2012 by Shea

Unity has been extremely frustrating today. I have been attempting to animate the main character but the software comes to a near standstill at every point. I have searched for the solution to the problem but have been unsuccessful thus far. I am a little disappointed because I was hoping to have a small animation to show at today's meeting...

The luncheon lecture was good. It was nice speaking with Pam because she was someone we all know rather personally and can be very open with. The conversation definitely furthered my interest in pursuing graduate school immediately after my under graduate studies are completed.

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Paintball and Unity

Posted on July 16, 2012 by Shea

This weekend was pretty fun. Paintball was great, minus the unbearable heat. There was a particular satisfaction in tagging my friends with balls of paint traveling at high speeds. Getting hit on the other hand, was not so fun (especially when it was by people on your own team [*cough Lilja]).

Today I have been working on getting the main character imported into the game environment and functioning properly. So far, so good.

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Guinea Pig

Posted on July 13, 2012 by Shea

Today= Journal Club, Character Design, Unity / Java Script Learning, Testing with Elease, and Testing with the Depth Perception

Journal Club's article was very straight forward but lead to good discussions. Unity and the Java script involved are not so straight forward... Now I'm off to be a test subject!

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John Deere & Ethics

Posted on July 12, 2012 by Shea

Yesterday we took a trip to the Des Moines Works John Deere factory. We took a ride on tour that focused heavily on the assembly of the cotton picker. It was quite impressive, but I honestly wasn't very interested. The virtual reality demonstration was different, considering the head mounted vision, but it seemed a little out dated. Despite this, the trip was a nice break from the normal grind.

The final ethics class was today. We discussed Ronald Thiemann's 1999 incident at Harvard University. As expected, it was an interesting discussion that had a few gray areas. Outside of ethics, we worked on drafting a poster and I completed more of a Unity tutorial.

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Tuesday

Posted on July 10, 2012 by Shea

Today, I feel a little less sore and I am not nearly as tired. The luncheon lecture was interesting once again and it demonstrated the breadth of programs in HCI.

Today, I am continuing my study of Unity and we will be presenting our progress to our mentors at 2:00pm.

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Case of the Mooondays

Posted on July 9, 2012 by Shea

The weekend was great. It was pretty relaxing and the canoeing was really fun. Today however, I am very sore. I also got a little tan...

In other news, I've spent the day learning Unity through tutorial videos and pdfs. There is a great deal to learn and though it is a little daunting at the moment, I am optimistic the outcome of all our work will be good.

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Friday

Posted on July 6, 2012 by Shea

Today our group led the journal club discussion. Although the article was not particularly interesting, the topics that arose from the reading were pretty engaging. The other mentees had good input and responded well to the questions.

We received checks today, that's always great!

I have been reading manuals and looking at Unity tutorials, currently I'm looking into issues importing svg files into the environment. When imported, the layers are reorganized alphabetically and in some cases renamed. This would not have been too much of a problem if there were not such a high number of layers. I have pretty much sorted it out, but I am looking into ways of making the process more efficient to avoid hang up in the future.

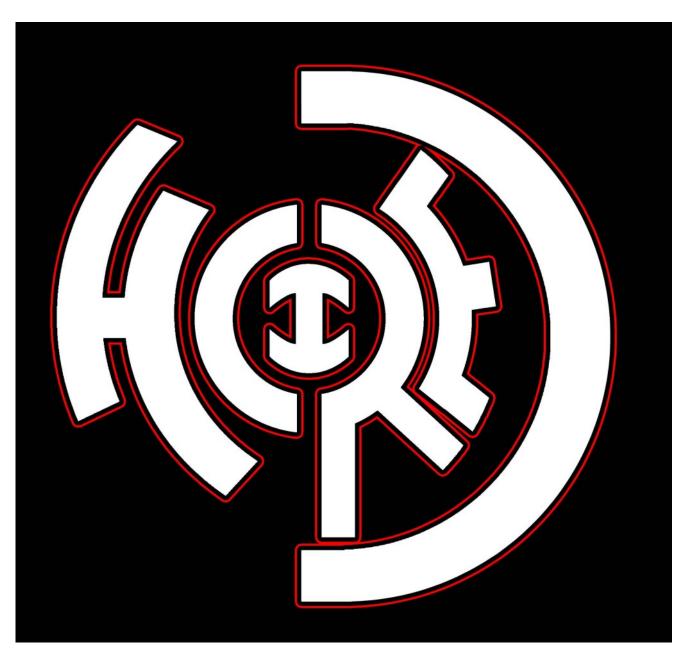
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Feed Back Wanted on T-Shirt Design!<<<< Presentations & Lectures

Posted on July 5, 2012 by Shea

Today has been pretty much all about preparing for our presentation. However, we had a nice break with the luncheon lecture and I was pretty interested in the topic.

Below is a design idea I have for the t-shirt, I'd like your opinions.



Its not final, but I think you get the general idea....

And another...



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Lunch with Elliot, Meeting With Dr.Kessler

Posted on July 3, 2012 by Shea

Today the luncheon lecture with Elliot was great. He spoke on some very thought provoking topics and challenged our ways of thinking. I wouldn't mind having more lectures with him, they are always enjoyable.

Our group met with our faculty mentor, Dr. Kessler, for the first time today. He seemed to like what we have done thus far, hopefully we will get some good feedback from him at our next meeting about our script and presentation.

Happy 4th of July (in advance)!

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7.2.2012

Posted on July 2, 2012 by Shea

I had a great weekend celebrating Tim and Amanda's birthday. Some of us went to see "Brave" and I think we agree that it was a great movie.

Today has been all about business. We have been working on elements of our game; primarily recreating our drawings as importable game objects. I am hoping for a good, productive week.

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Journal Club, Amanda, and Tim

Posted on June 29, 2012 by Shea

It's Friday again and I believe the consensus is that everyone is looking forward to a little break. Journal club was interesting and pretty well discussed.

For the remainder of the day, we will be editing our introduction and methods. If we are able to, we may work on some character and scene designs.

Today is Amanda's birthday and Tim's is Sunday. Amanda seems to be bubbling with enough excitement for the two of them.

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Ethics, Instructional Design, and Liltim

Posted on June 28, 2012 by Shea

This morning we had another dynamic ethics class with Elliot. My group was chosen to debate with Tim, Amanda, and Andrew on the Citicorp Center Crisis. Yesterday, we decided that many of actions and lack of actions by those involved were unethical. We had to debate from this stance and I feel that while we may have had good facts and knowledge of the situation, we did no present as well as the opposing group. Overall, it was a good experience and I look forward to the next class.

The lunch lecture was interesting and related in some ways to our research project. I think more conversation with Prof. Danielson would be worthwhile.

I don't agree with 2 of the three pictures Pam posted from yesterday's "photo-shoot".

Meet Liltim...

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Ethics and Research Project

Posted on June 26, 2012 by Shea

This morning, we had our first ethics lecture with Elliot. He was very interactive as he presented ideas and posed questions that did not have concrete answers. I look forward to reading the case studies he assigned and discussing them in the next class.

It was somewhat disappointing that the lunch lecture was cancelled. There was a possibility that would have been presented with some fascinating topic that would have blown our minds... I guess we will never know.

The remainder of the day will spent working on the written portions of our research project.

Hopefully flag-football will be fun.



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Monday

Posted on June 25, 2012 by Shea

Today was spent almost entirely working in OpenGL. I was trying to simultaneously complete the solar system with all its features and help with the group atom molecule. We were having difficulty with adding text, and creating a new view for the "scene". In the end, we were able to create a small screen, however it did not work properly after the user begins interacting with the program. We were also able to add text for directions on how to operate the program. I feel that our project was somewhat successful but I would have definitely liked to have more to show.

I think the other groups all had great work. Each group had a unique project but I was especially interested in Andrew, Sarah, and Charlicia's camp fire. Unlike other groups, they used particle effects; a concept we had not been introduced to.

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Friday

Posted on June 22, 2012 by Shea

Thus far, today has been a quiet, productive Friday (I wonder why that is). After a few trials and error, we were able to important a model (a nucleus of sorts) we created in Maya into the program. Now, we need to adjust the colors of the in program objects and add some user input operations.

Journal Club was interesting. The discussion was similar in someways to the previous in that paper investigated gender associations.

I look forward to the weekend for fun, relaxation, and time to get work done.

Last OpenGL Class

Posted on June 21, 2012 by Shea

Today was the last instructional day of OpenGL. We were introduced to textures and other features of the system. So far, on our atom molecule, we have the basic structure completed. Now, we must add effects and user inputs that control more than the camera.

At our Lunch Lecture with Nir Keren, we talked about his research with Simulation for Enhancing Emergency Response (SEER). His presentation was a great look into the actual process that goes behind the demo we sampled in the C6 at orientation.

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Wednesday.....

Posted on June 20, 2012 by Shea

Today we learned a few more advanced techniques in OpenGL. Our group is having some what of a hard time getting our solar system to look correct with lighting effects. Hopefully when can get it worked out soon and make some progress on our final project for the class. We will be designing an atom model.

The power outage yesterday put quite a large damper on my day yesterday. My phone was dead and the internet was off so I felt a little cut off from the rest of the world. It was refreshing to return to the apartment with the AC blowing and the refrigerated food intact.

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6/19/2012

Posted on June 19, 2012 by Shea

Today is shaping up to be a good day. We learned a few interesting techniques and reviewed some principles of Linear Algebra in our Graphics Programming Course. Our group began working on the daily assignment and thus far it is coming along well (pictured below).

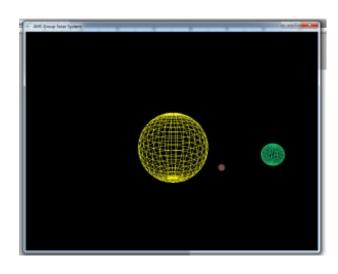
Today's lunch lecture may have been the most interesting lunch presentation thus far. The application of findings from the analysis of virtual worlds is an interesting prospect.

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Open to OpenGL

Posted on June 18, 2012 by Shea

This weekend we read several papers on serious games and game based learning. These papers where very informative on the challenges we will face and the benefits that our research may have on both the gaming and education communities. We completed a literary review analyzing about 9 papers collectively.



Today we began our OpenGL course with VJ. With the samples displayed in class and online, I can already see great potential to create a vast number of things. Today, our group made an emblem of our initials with a "clock hand" of sorts that the user can mover left, right, up, and down (pictured).

Danny had a short meeting with our group after lunch. In this meeting we discussed our weekend progress and the goals for the next few days. We plan to do more work on the script of "Escape Polymer Island" bearing the information learned for the literary reviews in mind.

I am hoping that the situation with Unity Pro and the RageSpline, and RageTools plugin is sorted out soon so that we can begin technical development.

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FRIDAY!!

Posted on June 15, 2012 by Shea



Today ends the Maya course. I was not able to completely finish my '68 Camaro Model (missing wheels, windows, and small additions), however I feel I made good progress and got a great feel for the software. Also, the Tele-Robotics group presented an interesting journal article on the low number of women studying Computer Science.

I look forward to the weekend and a possible hair-cut.

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6/14/12

Posted on June 14, 2012 by Shea

Today consisted of:

- More Maya Modeling- My 68 Camaro is taking form
- Lunch and Lecture with Dr.Still- We learned more aspects of HCI, particularly salience and affordance
- Meeting with our graduate mentors- We basically talked about reassessing goals and staying focused on particular aspects of the project

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Wednesday the 13th

Posted on June 13, 2012 by Shea

Today I learned a few great features that I am sure will be very helpful with my Maya project. At the moment, I am attempting to model as much of a 1968 Camaro as I can. Currently, I have designed most of the hood, but I expect the majority of the car to fall together nicely.

Last night we went grocery shopping... I got lots of cereal and oatmeal...

A few other mentees and I plan on going to gym later. That should be fun.

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More Maya

Posted on June 12, 2012 by Shea

Today we dived a little deeper into Maya. We focused primarily on UV mapping; basically the application of a texture to a three dimensional surface object or surface. The class project was to map the faces of a dice to a cube. After this was completed, our assignment was to use the same procedures to make a another textured object. For my assignment, I found and modified an image of wood to make a texture. I then applied this texture to a board. I look forward to tomorrow's lecture.

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Maya Monday

Posted on June 11, 2012 by Shea

This weekend was pretty fun and relaxing. We saw Prometheus on Friday night at the Cinemark 12 theater. I thought that it was an excellent film. We had the REU picnic on Sunday afternoon. It was actually a little disappointing in my opinion. I expected to interact more with other interns, and was hoping for burgers.

This morning we were introduced to Maya. I am very excited to learn the software and get into some modeling. Considering my CAD and other modeling experiences, I am confident that I will be successful in this class.

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End of the First Full Week

Posted on June 8, 2012 by Shea

Its Friday, the end of my first full week in the REU program. The week went by relatively slow, however I imagine that as the program progresses, time will pass more quickly. Heading to the library for the HCI study should be interesting, I will find out shortly. The programming project is coming along well and we expect to have it completed soon.

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Thursday

Posted on June 7, 2012 by Shea

So far things are progressing well. I'm definitely looking forward to this weekend. The rest and relaxation will be very welcomed in addition to the free time to attend to life outside of REU. I'm interested in the majority of lectures but at times I feel that others can drag on and be uninspiring. All in all, I am continuing to enjoy the experience and the people I am surrounded by.

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Day 3

Posted on June 6, 2012 by Shea

Today has been a good day thus far. I believe we are all starting to get adjusted to the flow of things. Programming class went well and lunch with the former REU interns was a good experience. After our Polymer Island group had a meeting with Audrey, we have become interested in borrowing a Wacom Tablet for designing elements of the game. I hope we will be able to...

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Informative Luncheon

Posted on June 5, 2012 by Shea

Thus far, the highlight of the day was the lecture luncheon with Professor Stephen Gilbert. In the lecture, Stephen discussed several studies involving Intelligent Tutoring Systems (ITS) and Adaptive Personalized Training. His presentation of the 360 Degree Video Spatial Cognition study was fascinating. In this study, subjects were tasked with identifying red barrels while a virtual persona traversed a 3D environment. The test was conducted in three

viewing modes; four 90 degree panels (front, left, right, and rear), two 180 degree panels (front and rear), and one 360 degree panoramic view. In some ways I was surprised by the results, namely the fact that the 360 degree view had favorable results.

I would like to look more into the studies presented today, especially those involving the enhancement of learning through the use of computer systems. I believe that such insight would be beneficial to continuing our project, Escape From Polymer Island. This game is planned to be game that is educational but engaging and fun for players.

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Weekend Activities

Posted on June 4, 2012 by Shea

The past few days marked my first weekend in the SPIRE-EIT program at lowa State University. On Friday afternoon, we visited downtown Ames for the Art Walk festival. It was interesting to engage in the festivities of such a small, quaint town. I went into a particular store that sold gourmet cupcakes. I shared a delicious chocolate chip cookie dough cupcake with a fellow mentee. Later, we saw antique stores, art galleries, a tattoo parlor, and much more. In all it was a new and fun experience.

Saturday, the group took a trip to Marshalltown to participate in the team building Ropes Course. In this course, we completed several activities that taught and reinforced many team skills. The activities seemed to focus primarily on cooperation, trust, communication, and participation. I thoroughly enjoyed the tower climbing exercise as it employed strategy, teamwork, and self determination.

This morning the group began the programming course. Although I am exempt from the class, I listened to the lecture and practiced my C++ programming through completion of the assigned tasks. I look forward to working on the programming project for this course. Although we haven't had much time to discuss our project, it seems that Alex, Hua, and I will be designing a multi-branched text adventure.

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End of First Week

Posted on June 1, 2012 by Shea

Today marks the end of the first week of the program. In these four days, I have learned a great deal about Iowa State, HCI, and VRAC. I am very excited for what the summer has to hold and believe there is much more to be learned/discovered.

In the short time that I have been on campus, I have had many great experiences. The other mentees and I were given rare tours of research areas demos such as the C6 virtual reality cube, an interactive haptics demonstration, and much more. I was also able to meet and speak with the graduate students and fellow project teammates. I feel that we will make an excellent group and have a productive summer.

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Bio

Posted on May 31, 2012 by Shea

My name is Shea Brown. I am a junior Computer Science student at Bowie State University in Bowie, MD. I have

keen interests in graphic design, software development, game design, and all things technology. I also enjoy listening to music, playing video games, news/history, meeting new people, and spending time with friends.

I am very excited to be part of this year's SPIRE program, especially considering the nature of my project. This summer, I will be assisting with the design of the Escape Polymer Island video game. I hope that my graphics, modeling, and computer science background will be vital assets to my team.

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Press f for fullscreen.

