Gabe Wright

🌐 **projects.vrac.iastate.edu** /REU2015/

This is the End

Posted on July 31, 2015 by Gabe Wright
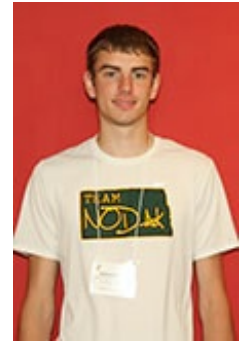
Today is the day… Hopefully events play out differently than in the movie.

…4 hours later…

We just got done presenting our research, and everything went pretty well. A number of people were really interested in our topic, and they asked a number of insightful questions. One guy in particular was really grilling Ogue on some of the claims in our poster, but I think she handled it well.

So now we are done. This blog and one last read-over of our paper is the only work that we have left to do. After that, it's one last dinner together, then a night of packing and cleaning (and if there is time Munchkin or Top Gun). This program has done a lot for me. I gained some friends that I hope I will stay in touch with, I learned a lot, and I found a (slightly) clearer picture of what I want to do in my future.

Here it is, your last tree of the day:

It's been fun team.

Winding Down

Posted on July 30, 2015 by Gabe Wright

We are down to 1.5 days left of our time together here in Iowa. It'll be sad to say goodbye to everyone, but I'm looking forward to being back in Minnesota. As our time is running out our to-do list keeps getting smaller, and we are just about down to only having a couple adjustments to our paper. Currently we are waiting on Dr. Claussen to come give us some feedback.

Last night the majority of us got together for another game night. We played hearts, rummy, and of course… Munchkin. My favorite moment of the night was when Maya walked by and inquired "What are you guys doing?"

Us: "…Playing Munchkin"

Maya: "YOU GUYS! It's after midnight! Go to bed. Go to bed right now!"
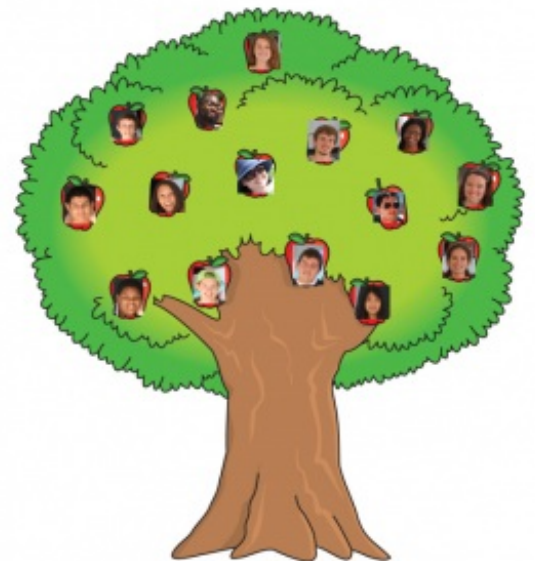
Sarah: "…Ok mom…"

On a side note, I won! Mostly due to Sarah being too tired and just wanting the game to end. But a win is a win!

Your tree for the day, in honor of the bro tank we gave Desmond:

THREE BLOGS LEFT

Posted on July 29, 2015 by Gabe Wright

Then you don't have to deal with my writing anymore! Lucky you!

Last night we had a game night, and a couple of us went to the local game store and bought a few different versions of Munchkins. It was really fun. The game I was involved in was really close and got really intense. David ended up barely edging the rest of us out for the win. After that we went back to our apartments, and my group got to work on making a final rough draft to send to Dr. Claussen for editing.

This morning we have been chipping away at a bunch of little things that we need to get done before Friday while waiting for Dr. C to get back to us with our paper. I feel a little stressed, but also laid back at the same time. It's weird.

Your tree for the day:

No joke to go along with this one, just the picture that comes up first when you type "tree" into google images.

Biked to work in a thunderstorm

Posted on July 28, 2015 by Gabe Wright

This morning when I walked outside I was hit by a wall of water. It was pouring. Already a bit behind I decided to just hop on my bike and accept that I'd be wet. It was raining hard enough that I would have been thoroughly soaked through before I could make the walk to the bus stop anyways. I got to work, soaked everywhere except where my coat covered, and am just now starting to dry off (except my shoes – those things take forever to dry out).

This week is all about putting the final touches on our research and our paper. We went to the lab last night in order to run some more CVs, but we didn't get any usable results. This morning I made some graphs with some other CV data, but I still don't think what we have is very usable. Oh well, I guess that portion will not go in our research.

Your tree for the day was going to be the intern family tree, but I couldn't find it, so here is the family tree from Greek mythology that I had to memorize for my first mythology test last semester.

Yep, it sucked.

Our Last Weekend

Posted on July 27, 2015 by Gabe Wright

Our group had one last weekend together and we made the most of it. On Friday night a bunch of us went to the

National Balloon Festival down in Indianola to see some hot air balloons and listen to a really good band (the Nadas, I believe). Afterwords we went out for ice cream and then to a playground, because everyone needs to embrace their inner little kid every once in a while. For the ride back, Allie and I made sure to reunite Sarah with her "children" to ease their separation anxiety. Then we went adventuring (or got lost, semantics really).
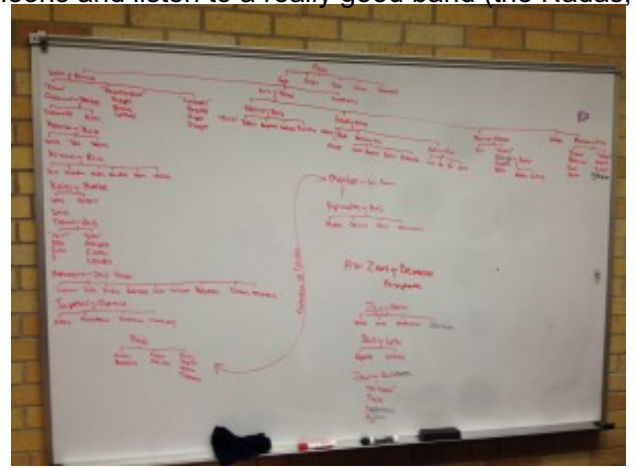
On Saturday most of us played paintball with along with David's brother and some of their friends. It was really hot and muggy, but it was a fun group event for our last weekend together.

Sunday was pretty low-key and included some volleyball, Smash bros, and Minchkin. Oh, and finishing our poster. Which has some slight citation errors, I think, but otherwise is good.

Your tree for the day:

(pic from inForum, the crazy tree on my campus)

Reflecting on the Summer (Part 1)

Posted on July 24, 2015 by Gabe Wright

I'm sure next week I'll have a blog about this program as a whole and how it has impacted me, but that is not what I'm going to focus on today.

Some of you know some of this already, others don't, but a handful of unfortunate things (that had nothing to do with this program) have happened to me this summer. Almost all of it was completely outside of my control, it still has had an effect on my personality during my time here in Iowa. The comment was made the other day that I am "always so serious", and this summer that has been mostly true. That's not who I am though, not even close. Circumstances, for the time being, had made me that way. That's done now. We have a week left in this program, and I'm going to make the most of it. I'm going to live in the moment. For the first time in about seven weeks, I'm going to be myself. And it'll be good.

——

Enough of that depressing little side track, on to what's going on in our program. My group has about 3.5 hours until the day is done and feedback for our poster becomes much more difficult to get. Uffda, there's still a lot of work to do. Tonight a group of us are heading down to Indianola for National Balloon Festival. Tonight there is a band and some hot air balloons and

something called "Tip the Outhouse". Should be fun.

Your tree for the day:

Bonus points to people who know what that's from

6.5 Workdays Left

Posted on July 23, 2015 by Gabe Wright

We only have 6.5 workdays left before our summer in Iowa comes to an end, and there is still a lot to do. My group is still hard at work on the final tweaks of our poster, and our paper still has a lot that needs to get done…

We have a workshop in a few minutes, so I'll keep this blog short.

Here's your tree of the day:

<<<=

It fell over…

Yay R!

Posted on July 22, 2015 by Gabe Wright

After working all day yesterday on our methods diagrams, our group went to the lab this morning and spent a lot of time getting no usable results. Oh well, that's research I guess. We are going to try again this afternoon.

Sometime last week Dr. Claussen told me that I needed to improve the appearance of my graphs for use in the poster/paper, so with the help of the Google I pieced together this code:

```
ggplot(dataset, aes(x=concentration, y = means))+
geom_line(aes(x=concentration, y = predicted), colour = "black", size = 2)+
theme(panel.grid.major = element_blank(), panel.grid.minor = element_blank(), panel.background = element_blank(), axis.line = element_line(colour = "black"),panel.border = element_rect(colour = "black", fill=NA, size=5),axis.title=element_text(size=14,face="bold"),axis.text=element_text(size=12))+
geom_point(colour = "red", size = 5)+
xlab("Concentration H2O2 (uM)") +
ylab("Current (uA)")
```

which makes this graph:

WHOOOOO! SO EXCITING!

To finish up, here is your spruce of the day:

Enjoy!

"Dry as cardboard"

Posted on July 21, 2015 by Gabe Wright

"plain as vanilla"

"dull as that one lightbulb in my kitchen"

"boring as Desmond's HCI class" (I kid…)

These are phrases that have been used to describe my blog lately (SORRY I'VE BEEN TOO BUSY TO BE CREATIVE). I'll do my best to spruce it up the last few weeks, starting now:

(that's what a spruce looks like, for those who don't know)

This morning my team has been hard at work creating diagrams describing our methods for our poster. Bask in the wonder of cartoon platinum nanoparticles being deposited on a textile (you can tell it's a textile because it bends. How neat is that?!)

Now to get back to work

Two weeks left

Posted on July 20, 2015 by Gabe Wright

Today is our second to last Monday here at the VRAC. With deadlines looming and papers and posters to write there is no shortage of things to work on.

This weekend we interns kept ourselves busy. Friday night we had a video game night in my apartment, and Saturday night we had a card game night in on of the girls' apartment. Both nights were a lot of fun. Yesterday a group of us went to a beach at a local lake, and despite a relatively chilly morning it turned into a nice day. Last night a couple of us went to the movie Trainwreck.

This morning has been pretty uneventful, and the afternoon looks to continue that. So far I've read a couple articles that we were assigned as well as created a few graphs from some of the data that we got last week. Now it's time to get back to work on our results/conclusions sections.

WUnderground says it feels like 110 outside…
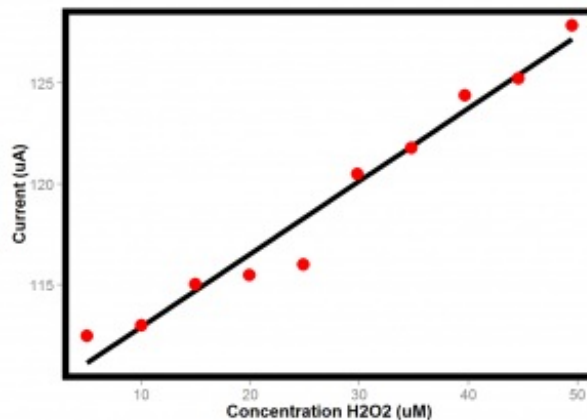
Posted on July 17, 2015 by Gabe Wright

I'm a true Minnesotan, I can deal with weather that's below zero, but anything this hot just drains me. I didn't get to do a blog yesterday because I had to run to the lab in order to help one of the girls we are working with some of the graphs we are creating. I really like using R (stats software), but it's not super intuitive to those who have never used it.
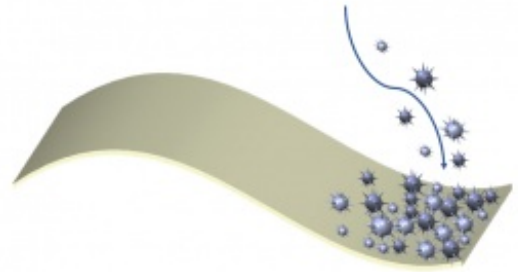
Today we got a really cool tour of the Science Center in Des Moines. The people who led our tour were super personable and easy to talk to, and you could tell that they have a passion for what they do (one was the CEO of the musuem, another was an exhibit designer).

My wearable electronics group needs to continue to plug away on our poster/paper, but I think we are in decent shape there. The poster is a little more stressful because its final copy is due a week from today, where as we have two more weeks for the paper.

I don't know why this blog gives an error…

Posted on July 15, 2015 by Gabe Wright

…every time you try to rotate a picture. But there it is. Revel in it's wonder. The bro tank I won for… the Cy contest which I didn't actually win? Or the Smash Bros tournament which I did win, but I wasn't awarded the bro tank for? Or for the story contest? I'm not really sure… Regardless, there it is. And it's great.

Today we presented our research to other REU students at a similar program at USC. I think our presentation went pretty well, and it was interesting to hear about some other tech research that is going on. I'll be honest though, I zoned our hard during one or two of them… oops.

We also took more group pictures today, and I think we got some good ones. And I think I jammed/slightly sprained my ankle during one of the jumping pics… I guess that's what I get for jumping off a ledge onto pavers barefoot.

Now that our presentation is over, my group has to get to work on our poster. Like a hydra, cut off one head (of work) and two more (heads of work… bad analogy) grow back. Might as well keep chopping away.

Monday Night Recap

Posted on July 14, 2015 by Gabe Wright

Last night was a much needed relaxing and fun night. After watching a very exciting Home Run Derby, a number of us went to Perfect Games for their Monday night bowling specials. David proved pretty consistently that he is the best bowler of the group, but I was only one pin away from him in our second game. We also played some pool while a couple people went to the arcade, and we learned that the 8 ball is not David's friend. All in all it was a really enjoyable night.

This morning my group again went to the lab, but instead of experimenting we worked on our poster/presentation because we have some deadlines for those coming up. We are going back this afternoon to finish up some sensing experiments on the Pt-Pd textiles, and maybe one or two of the Pt-Ag textiles that haven't been tested yet.

MOA:GROUP02

Posted on July 13, 2015 by Gabe Wright

Describe ux of MOA, Light Rail, Target Field: As these are all places that are supposed to attract tourists/facilitate their movement, they all had very "user friendly" experiences. The mall is designed to keep you as comfortable as possible to keep you in it for as long as possible, the light rail was easy to use (just buy a ticket and walk on) and target field was very hospitable in order to try and convince you to come back.

Discuss interaction Design and take pictures:

Mall mini golf

One of the activities I did at the mall was play mini golf against Desmond. In general, one's interaction with a mini golf course should be pretty self explanatory, but there were a few holes that were a little odd… They had two cups that you could put into to complete the hole, and offered no sign or directions as to which one you were supposed to aim at.

Compare/contrast Minneapolis with other cities you have visited: Well, Minneapolis has been by far the big city that I have spent the most time in, but for this exercise I'll compare it to another that I've spent a few days in – New Orleans. Despite the obvious cultural differences (Minneapolis has no equivalent of Bourbon Street, for example), there are some similarities. Both were built on the Mississippi River and grew as a result of the trade that occurred there. Both (like most big cities) have major points of interest all within walking distance. One thing that was different was that New Orleans does not have a light rail system like Minneapolis does (although I think they have a trolley system…).
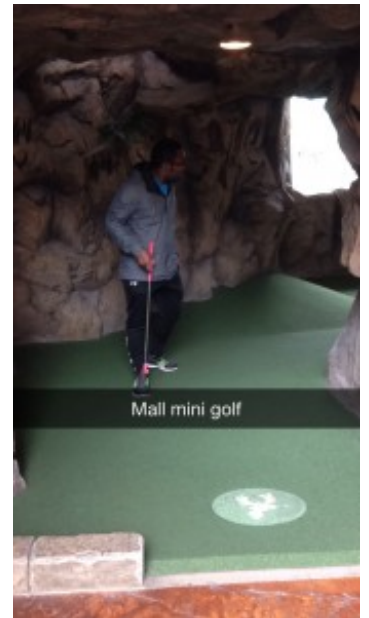
Discuss how your projects can improve the functionality or safety of MOA/LR/TF: The place where my project would be most useful is on the field at Target Field. It could be used by athletes (once the project gets completed, of course) to measure things such as dehydration, muscle fatigue, etc.

And then there were 3

Posted on July 10, 2015 by Gabe Wright

Today is Friday, marking the end of week 7 of the SPIRE-EIT program. This means that we have only three weeks left, with a lot of work still left to be done.

I didn't get a chance to blog yesterday because my group spent this time in the lab trying to get another one of our experiments done. Our results got a little weird, but they should be at least partially usable. We have slightly changed the nature of our experiments making each run more important that we get it right (each run takes approximately 50 min now, as opposed to the 15 that they were taking earlier).

In addition to our experiments, my group has begun work on our mid summer presentation as well as an outline for our final poster. The presentation is coming along alright, but our poster is still very rough. One thing at a time I

guess.

This afternoon we have Intro to HCI, followed by a little more work time then we are going to an outdoor movie tonight. Tomorrow the intern group makes the trek up to Minnesota to go to the Mall of America/some of us (the cool ones) are going to the Twins v. Tigers game.

MATH!

Posted on July 8, 2015 by Gabe Wright

So in the last 24 hours I actually got to use skills from my area of expertise, math! Particularly in regards to data management. We had tens of thousands of lines of data that we needed to glean some information from and condense down into some easier to read/interpret graphs. After working on that yesterday afternoon/this morning I was able to get them done. Hopefully I did it in the way which our advisers wanted.

We have our group picture this afternoon, as well as some usability testing for the products we "created". After that, my group is heading back to the lab. I think we will be running some experiments trying to deposit silver on top of our pt-nanoparticle textile in order to make it antimicrobial.

Thinking about grad school

Posted on July 7, 2015 by Gabe Wright

The last 24 hours have been pretty unproductive for me in a 'getting work done' sense, but I have given quite a bit of thought to grad school in that time. I started looking at grad programs in data science yesterday, and I think that's something I might be interested in. I also came across a field of study that I didn't really know about before – machine learning. It appears to be a field at the intersection of statistics and computer science, and a field that has some really cool applications. So that might be something to look into.

Keeping with the theme of thinking about grad school, we had a grad school prep workshop this morning where we talked about the grad school application process in general. It was helpful, and it kind of made me realize that it's something I should get started on. We'll see where that goes.

This afternoon my group is going to the lab again (I think, we haven't actually heard from our mentors yet). Hopefully we can get some usable results now that the finish line for our program is in sight.

A few pics from my MN weekend

Posted on July 6, 2015 by Gabe Wright

Last Thursday I made the 7ish hour trek up to my family's cabin on Middle Cormorant Lake back in Minnesota for the Fourth of July. The Fourth is always one of my favorite holidays, and there really is no better way to spend it than on a Minnesota lake. Between my cabin, my cousin's cabin (on my dad's side), my other cousin's cabin (on my mom's side) and my grandparent's cabin (all of which are within a few miles of each other) there were a total of well over 30 family and friends to greet me on my brief visit back home. I could talk a lot about all of the fun experiences, but ya' know what they say – a picture is worth a thousand words.

(Boat Parade – The boat in the background my uncle's, and is also loaded with people celebrating the fourth)

(Cousins around a bonfire)

(Chillin' in the lake)

(More chillin' in the lake)

(Paddle boarding!)

(Some fam post 4th of July dinner)

(Beautiful night on a beautiful weekend at the lake)

In the Lab

Posted on July 1, 2015 by Gabe Wright

The Wearable Electronics team spent this morning in the lab. After waiting around for a while then spending a fair amount of time learning/getting the experiment set up, we finally ran the experiment and… got results that don't mean anything. We think it is because we had one of the electrodes set up just a little incorrectly. Either way, we will try again tomorrow…

This afternoon we are going Anna's thesis defense, and we have a few evaluations to do, but otherwise I think my group will be spending time working on our presentation for next week. I am very much looking forward to the long 4th of July weekend which starts once work is done tomorrow.

LIL' MAC, not to be confused with our own Little Mak

Posted on June 30, 2015 by Gabe Wright

Yesterday afternoon we had another ethics course with Elliot, which led to a lot of good discussion on a variety of topics. I know some people have a hard time talking about sensitive topics, but for the most part I think our group did pretty well.

Last night Desmond was kind enough to invite us over to his house for a video game night. The set up he has is great, and after playing 8-player for a while, we eventually created a double elimination Super Smash Bros tournament. After losing my second match to Alex, I crawled my way back through the loser's bracket with a comeback victory over Mak with Lil' Mac and a victory in my rematch with Alex in order to get to the championship with David. After two good matches, Lil' Mac's KO punch proved to be stronger than Shulk's reversal and I came away victorious. It was a really fun night, thanks again to Desmond and his roommates for hosting us.

This afternoon the Wearable electronics team is heading back to the lab to do some more research.

The Start of a Short Week

Posted on June 29, 2015 by Gabe Wright

Today begins a much needed four day week. To make it even better, I we got most of our "deadlines" out of the way last week, so this week is looking to be much more relaxing. I'm planning on heading back up to Minnesota for the 4th, so that will give me some extra time to unwind and prepare for the final four weeks of this program.

This morning some of us watched a webinar of some Nobel laureates answering questions submitted by students/postdocs about careers in science. It was very interesting and kind of reminded me of some of the Q&As we've had with various professors during our luncheon lectures here at ISU, except that the people answering the questions had won Nobel Prizes. Which is pretty cool.

Up next today is another ethics course with Elliot. Tonight we are having a Smash Bros tournament at Desmonds. Should be a fun evening.

The race is over… Or, more appropriately, half over

Posted on June 26, 2015 by Gabe Wright

As a track athlete I've run my fair share of endurance races, and one thing is always pretty constant: unless the race is a championship of some sort, there is very little excitement/accomplishment for actually finishing the race. It's more of a feeling of relief, an "I'm glad that's over". This week kinda felt like that. We had a lot of things to do (and only a little time to do it in) and for the most part they were just middle of the road things. A section of a paper, a presentation on a paper, etc. I'm sure the feeling of accomplishment will come when the "championship" comes (week 10 when we finish up our research), but for now there is just relief that this week is over.

With all of that being said, HOLY COW, WE'RE HALF DONE. I'm really enjoying my time in Iowa and it is just flying by. I've learned a lot of interesting, useful skills in the last 5 weeks. The next 5 weeks are more about diving into our team research projects, and after our meeting with Dr. Claussen today I am feeling a lot more confident about that. Up until now I think my group has been in a little over our heads working in what is essentially a chemistry lab when none of us have any experience in the field. We are shifting the focus of our research a little, and hopefully we can start getting some usable results.

Desmond announced the challenges for the next two weeks, and I think I have a good chance at all of them. The first is a Smash Bros tourney, which I feel pretty confident about. The second sees who can get the most pictures

with the various Cy's around town. I think having a road bike gives me a distinct advantage here. The third is to see who can get the most patriotic pic over the 4th of July, which I will be spending at the lake up in MN. There will be fireworks, boat parades, and decorations aplenty.

Tomorrow we are heading back to Des Moines to go to an art festival, a farmers market, and to have lunch with a former SPIRE-EIT Intern. Should be fun!

Slowly But Surely Getting Things Done

Posted on June 25, 2015 by Gabe Wright

The list of stuff that needs to get done is slowly getting smaller. My group finished up our introduction this morning (sorta). It is pretty rough, and it is probably much broader than the introduction that will be used in our final paper, but at least we have a rough draft that we can bring to today's Craft of Research class in 40 min. We haven't really done anything for our methods section yet, but that can wait until tonight.

Allie and I got our HCI work done last night, and while we were working I found out a very surprising fact about her. She has no idea who Simon and Garfunkel are. Not that she doesn't know their music (which is understandable, I don't really know that much of their work), but that she had never heard of them before. Which I found super odd… Additionally, we still have to write our story for this week's competition, which will also probably happen tonight.

The only other thing needing to get accomplished is my groups hour long presentation for journal club tomorrow… Another thing that will probably have to happen tonight.

Its going to be a busy night.

User_HCI: Team Wilcordia
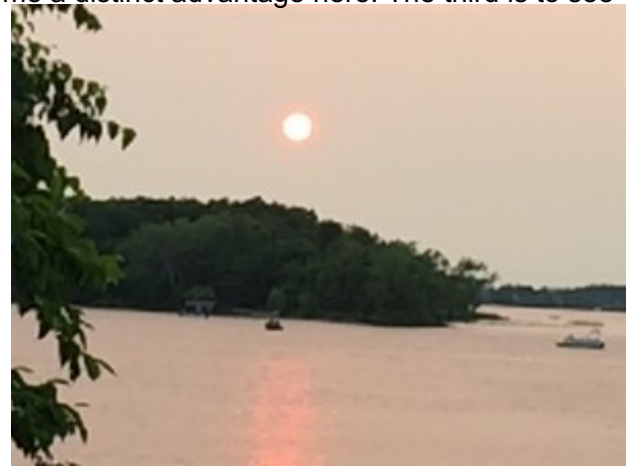
Posted on June 24, 2015 by Gabe Wright

Team Wilcordia: Gabe and Allie

Product: Coffee Freestyle

Basically a spin off of the Coke Freestyle machines that are becoming popular. It allows you to choose your coffee grounds as well as any flavors you would like to add to your coffee (caramel, cream, chocolate, etc.). It then will brew a single cup (or whatever the chosen size is) of specialty coffee just for the user.

Target consumer: industries/schools/cafeterias

User Consideration: Touch screen interface, a big enough port fit a travel coffee mug. Simple/easy to use interface with many flavor choices.

An Interesting Wednesday

Posted on June 24, 2015 by Gabe Wright

I feel pretty confident in who I am as a person. I know what my strengths are, I know what my weaknesses are, and am pretty objective about them. I have critically thought about my beliefs and my morals and don't really have a problem sticking to them. These qualities of mine came in handy today during this morning's ethics class with Elliot. He started the class by saying part of his goal was to make us uncomfortable (he failed in that regard when it came to me). For the most part I didn't have much of a problem coming up with a solution when faced with his ethical dilemmas, and my opinions on those topics aren't something which I have much trouble speaking about.

Following the ethics course, we went to the memorial union to have an "etiquette lunch" where we learned proper American dinner etiquette. In addition to the qualities I listed about myself above, I should add that I am big on practicality. As such, I honestly considered the lunch a bit of a waste of time. Obviously, certain basic behaviors should be followed whenever someone is in public: don't chew with your mouth open, don't talk with your mouth full, etc. But the rest of it is a highly unnecessary form of elitism that dates back to one of France's most extravagant elites, Louis XIV (as told to us by our very friendly etiquette instructor). Why should anyone care if I use the wrong fork to eat my entree? Or if I fail to cut my food with my right hand while holding the food down with the fork in my left, only to then pass the fork to my right hand (tines up, mind you) to then eat my food? Does it really matter? I think the answer is a pretty resounding 'no'. If someone is the type of person who thinks less of me because I don't follow these unnecessarily archaic etiquette practices, that is probably the type of person whose opinion I don't care that much about.

This afternoon my group will continue to plug away at the laundry list of tasks we have to complete by Friday. We also have a statistics presentation this afternoon, which I'm excited for because it's finally something in my area of expertise!

Busy Tuesday

Posted on June 23, 2015 by Gabe Wright

So in my last blog post I forgot to mention a few of the things that also need to get done this week such as a 1 page paper for 3d modeling project and a couple of articles to read for craft of research. So an already busy week just became busier. Yay!

On another note, we continued our work with Maya this morning, and I must say, I like it better than SolidWorks. The only downside I keep running into is it keeps crashing on me once I get a little ways into a project… So I actually have nothing to show from the last two days at the moment. Hopefully that can get worked out over the next few days.

"Left a good job in the city…"

Posted on June 22, 2015 by Gabe Wright

"…Rollin', rollin', rollin' on the river". Thanks to CCR (sorry Tina) for a literal summary of our weekend.

Saturday most of the SPIRE-EIT interns went to Boone, IA, to go on a 7.5 mile tubing adventure down a river (not quite sure which one). While we didn't quite have as much sunshine as would have been desired, that didn't stop us from getting a little sunburned. Some of us more than others (Allie).
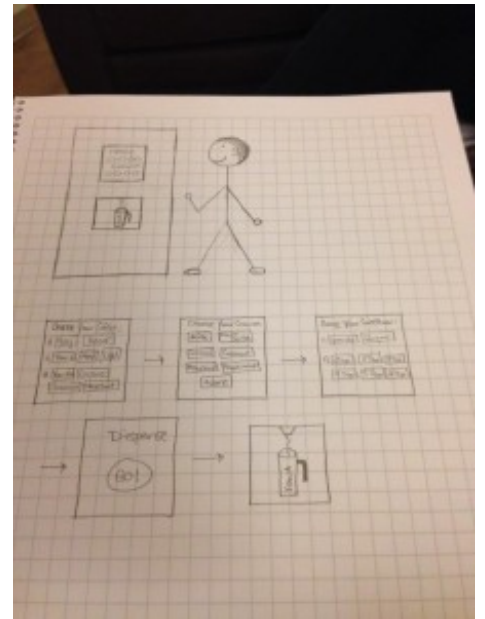
Sunday we had an intern "family" dinner in Freddy followed by some Catan and UNO. It was a fun relaxing night before the start of a very busy week. Starting today we have:

- Our graphics projects due
- A 3-5 page story for this week's competition
- Our introduction/methods sections for our research papers (due Friday)
- My team has to come up with an hour long presentation for this weeks journal club

I should probably get to work…

InterfaceHCI

Posted on June 19, 2015 by Gabe Wright

Interface 1 (Lamp):

I don't know why it is upside down, but I'll roll with it.

Task: To provide light

Context: In the Freddy apartments

Working: Very simple, one on/off switch, one plug-in, very intuitive, very functional

Not working: It is fine for its purpose

What would make it better? : Another plug-in would be nice, add to its functionality

Interface 2: water bottle filler (again, it will not let me rotate the image)

Task: to fill a water bottle

Context: In Howe Hall hallway\

Working: Super simple, no buttons, there's even an illustration on the machine to indicate to the user what to do\

Not Working: again, it is good for its purpose. For someone who has never seen something like this, the motion sensor might be a little unintuitive

What would make it better?: if it automatically stopped when the bottle was full

MORE PAC MAN

Posted on June 18, 2015 by Gabe Wright

So much PacMan. After yesterday's blogging time, I was hard at work on team Wearable Electronics' PacMan game. After just over 1300 lines of code, most of our game has been completed. The only thing left to add is Ogue and Mac's portion – the dots that PacMan has to eat in order to win the game. I think that everything else is working as it should.

This afternoon we have another round of Craft of Research with Anna, followed by a Biofeedback activity which I really don't know much about. Should be interesting.

"If you choose not to decide you still have made a choice"

Posted on June 17, 2015 by Gabe Wright

This afternoon is going to be a lot of grind-it-out coding for some of the parameters of the PacMan game my team is creating (which is going to be awesome, by the way), so in preparation I am listening to one of my favorite classic rock bands, Rush, as I type this. I'm excited to see the final product of my team's game.

Last night my team worked late on an experiment for our wearable electronics project, and while we didn't get all the results that we were hoping for, it was good to actually get that started.

On another note, I watched the last three episodes of Game of Thrones last night (warning, possible spoilers). I've learned not to get too attached to characters anymore. When Catlyn, Rob, and his wife were murdered last season (a couple seasons ago?) I was distraught. With the latest stream of murders, I didn't feel anything. In my head I was thinking "yep, this seems about right…" Which, in of itself, is kinda depressing.

Now it's time to get back to some PacMan coding…

Wup Wup Wup Wup… (Pac Man Noise)

Posted on June 16, 2015 by Gabe Wright

Today we had our second day of computer graphics learning and I feel like it is something I'm really going to enjoy. Our group decided on our project for the week, and we are going to try to build a Pac-Man game. I'm not sure if any of us really have the experience needed to get this done in 6 days, but we are going to try. We'll see how that goes.

Par for the Tuesday/Thursday course, we had a luncheon lecture with another faculty member today. Dr. Elliot Winer, who is one of the coordinators for the REU program, talked to us today about grad school and life in general. As always, it was an informative experience, and I can certainly see myself going to grad school after graduation. I just have to figure out where and for what. Really just the minor details…

I said in my last post that last night was going to be my team's first experiment for our research project, but that didn't happen. It got rescheduled to tonight, so it's going to be a long Tuesday for the wearable technology team.

Weekend Review

Posted on June 15, 2015 by Gabe Wright

Today I finally got an introduction to something I've been curious about for quite some time… computer graphics. After being given countless warnings over the first few weeks of this program about how finicky OpenGL would be, it really wasn't that bad (at least the simple stuff we were doing today wasn't). That being said, I'm sure it is going to get more difficult as we progress into more intricate projects, but I'm excited to see what I can get done this week.

This weekend was a lot of fun, some of us went out for wings and Jurassic World on Friday night, and we all went to a ropes course on Saturday morning. I had been to a ropes course before, but I love heights, and this one had some

different challenges that made it a newish experience. I really enjoyed the giant swing, and the hanging logs were pretty difficult, but I was able to conquer them.

My Wearable Technology team gets to do our first experiment tonight on our platinum nanotube coated textiles. It'll be nice to get into actual research.

The True* Story On How Hufflepuff Got Its Name

Posted on June 12, 2015 by Gabe Wright

The great and wise sorting hat (Desmond) has spoken, and I've been placed in Hufflepuff. I'm not sure what I did to deserve this slight, but I now see how I stand in this program. You may be wondering why I consider this such an affront… Time to delve into my inner historian and tell the tale of how Hogwarts "participation award" house *really* came into being. Most people know about Helga Hufflepuff, and fools will defend her existence to the death. But I know better, she was a creation of those in Hufflepuff who wanted to cover up their house's sad history. Here is the ture story of how the most inconsequential house came into existence:

Hogwarts actually had only three founders – Salazar Slytherin, Godric Gryffendor, and Ruina Ravenclaw. Each of these three formed their own house: Gryffendor for the brave, Slytherin for the crafty, and Ravenclaw for the wise. But what was to be done with those poor magical students who were neither brave, crafty or wise? The three founders put them into a fourth house, a house of the outcasts. None of the founders wanted to claim responsibility for this fourth group, and so they became the Nameless. For years and years the Nameless went about their business as half-students at Hogwarts, for they could go to classes but couldn't engage in other activities that those in houses had the privilege of. There was no quidditch, no house common room, and certainly no house cup.

One day (out in the world, not in Hogwarts), the three little pigs were going about their business as usual. Porkey was a well established accountant, Kevin 'Don't Eat My Bacon" was quite the actor, and Mike (aka Spider Pig) got his 15 minutes of fame on the popular TV show *The Simpsons*. Suddenly the big bad wolf appeared out of nowhere, and thus began one of the greatest chases in history. The wolf was relentless, chasing the pigs all over the world. The chase spanned three continents, 42 countries, and one unfortunate city state. The pigs were exhausted and running out of places to hide, so they turned to a familiar magical school as a last resort (being talking pigs, they were able to get in by passing off as 'magical creatures').

Outside the walls, the wolf was screaming "Give me the pigs, or I'll huff, and I'll puff, and I'll blow your castle down." The founders ignored the wolf's threat, knowing that the wolfs breaths would be inconsequential against the castle's magical defenses. *Inconsequential… Huff and puff… Hufflepuff!*

And the rest is history.

Bringer of Doom to the Greater Ames Area

Posted on June 11, 2015 by Gabe Wright

Another day, another luncheon lecture. Today was Dr. Dark, arch-nemesis of Dr. Light, bringer of doom to the greater Ames area. But in all seriousness, I liked the honesty and up-beat attitude of Dr. Dark. She was very friendly and didn't seem like the type of person who takes herself too seriously, which is good. Her area of research is Psychology, and although it is not a strong area of interest to me, it was still fun to hear about.

In other news, my group has finished up our design which will be 3D printed one of these days. I enjoyed working on the project and utilizing some problem solving skills in trying to get everything to work nicely. It was also fun to play with some of the examples already built into the 3D printing software. Poor Laurana…

Whoops… I Forgot a Title When I First Published This

Posted on June 10, 2015 by Gabe Wright

A lot has happened in the 2ish days since my last post, so I'll do a quick recap:

- Tuesday morning was more 3D modeling. I'm still definitely not good at it, but I'm improving. You can't expect to be great at something after two days…

- Also on Tuesday we had another luncheon lecture, this time with Dr. Jordan. She was very unlike the first two lectures we had, and she had a very broad path that led her to her Ph.D in HCI. While her particular journey isn't something I see myself emulating, it was still interesting to hear.

- Tuesday afternoon we went to a thesis defense. While most of what was said went well over my head, it was still good to see what a thesis defense entails.

- Tuesday night we got to go to the planetarium here at ISU and learn about stars, constellations, mythology and our universe in general. Afterwords we went to the top of the physics building where they had some telescopes set up to do some stargazing. Cool experience.

- This morning we learned about a hot topic in technology – 3D printing. After a little bit of the history/processes, we began work on designing our own items to be 3D printed. I'm excited to see our final product.

An… Eventful Weekend

Posted on June 8, 2015 by Gabe Wright

Wow, this weekend was a bit of a roller coaster. Friday night was fun as a group of us went to the art walk in downtown Ames. Saturday was a great – our group went to sky zone, downtown Des Moines, and Zombie Burger. Intertwined in all of these events was a game of assassin, which has not yet been fully completed. All in all, it was a ton of fun. I enjoy spending time with this group. That night rolled around and started pretty well, with my roommates and I playing some video games (a common theme). Then midnight came and began a really rough 12ish hour stretch for me. On Sunday we had a picnic with all of the REUs that are going on here, it was fun, but I feel like I didn't branch out into the other groups as much as I probably should have.

I'm From Minnesota, don't ya know?

Posted on June 5, 2015 by Gabe Wright

When it comes to accents, the United States is a very diverse place. The east coast has "the New Englander", there are the southern drawl, as well has a whole host of others. Then there's where I come from – the North.

When people here I'm from Minnesota, they expect my dialect to be straight out of the movie 'Fargo' or from a Garrison Keillor skit (fun fact: A Prairie Home Companion got its name from a cemetery in Moorhead, MN, my hometown, there's even a wikipedia page about it). Now these examples are obviously hyperbole, people from my region do not actually talk like Ole and Lena. That is not to say, however, that there isn't a Minnesotan accent. It exists, and its prominence varies from person to person. Heck, it's something we take pride in. One of the cheers for my college's football team is "Lutefisk, Lefse, Can we beat them, ya sure you betcha" (to my fellow REUers, if you don't know what lutefisk and lefse are it's ok, you are only missing out on one thing).

All that being said, I have never thought that I have a very strong accent. Apparently I'm wrong. My peers (looking at you Allie) have noticed that I have a slightly different way of pronouncing a number of things than they do. It has

been most prominently noticed in words with 'ag' (bag, rag, lag, flag, agriculture, etc.). Apparently these words aren't supposed to have a long 'a' sound. Uffda. Who knew? It's ok though, I'm a good sport about it. At least I don't say y'all.

On Grad School

Posted on June 4, 2015 by Gabe Wright

I really enjoyed today's luncheon lecture with Dr. Stone, his perspective on grad school was helpful. I am becoming more confident that grad school is something I would like to do in my future, however the task of choosing what I want to study and where I want to do it seems daunting (much more so than for my undergraduate degree). I had pretty much always known that I was going to study math in college – it is what I was best at and it is what I enjoyed. Contrasting this is my (still potential) decision about grad school. I still know that I like math and it is still certainly what I'm best at, but I also know that I do not want to do a straight mathematics graduate degree. The theoretical side of math is not something I particularly enjoy. That leaves applied math, but even that field is vastly diverse. Then there are interdisciplinary programs like HCI (which I didn't know existed before this REU program) which are options with intriguing applications too. Hopefully this summer can help point me in the right direction.

MikeMikeMikeMikeMike GUESS WHAT DAY IT IS?!

Posted on June 3, 2015 by Gabe Wright

Nope. Not going to finish that joke. Everyone grew tired of it a long time ago, and any way, I'm not a camel…

Another morning of C++ class – my java knowledge is coming in handy. It's nice having some framework to build off of. My group is hard at work on our Pokemon project, but, like any coding project, it is a slow road. Things will appear to be working great, then all of the sudden they won't be. But it is a fun project and I enjoy working on it.

My group also got to meet the rest of the team that we will be working on our bio-sensor project with and we got a tour of the lab we will be working in. I am excited to actually get to work doing some research soon, and I'm really excited to put my expertise to use once we get some of the experiments done and have some data to work with.

And now if you'll excuse me, I have some Pokemon calling my name.

C++, Lunch, and Video Games

Posted on June 2, 2015 by Gabe Wright

I think I'm getting the hang of C++. It certainly has its differences from Java, but there are large similarities. The biggest thing that is giving me issues is the IDE, not the code itself, which is frustrating in its own way.

We had our first luncheon lecture today with Dr. Stone, an engineering professor here at Iowa State. He talked about his research projects, his kick boxing career in Thailand, as well as his fascination for the Price is Right. All around a pretty interesting lunch.

On another note, for the second consecutive night we've learned that "Just one more game of Smash" is a meaningless phrase… It's amazing how "one more" can turn into "one more hour" like *snap* that. Oh well, I guess we can chalk that lost time up to "group bonding".

Monday Monday

Posted on June 1, 2015 by Gabe Wright

Week two has begun. We are no longer newbies to this whole REU thing (well, sorta), and seemingly all have acclimated to our new environment pretty well. After a weekend of swimming, rock climbing, and Smash Bros, we began our Monday with an intro to C++ class. Some of it meshes with my experience with Java, however the new syntax will take some getting used to.

We got "Tour Pt. Two" today and got to see the UX (User eXperience) Lab, the design center (which had some pretty cool haptics equipment) as well as the MiRAGE (Mixed Reality Adaptive Generalizable Environment). This afternoon will be the first substantial chunk of time we have devoted to our research projects.

On Personality Typing

Posted on May 29, 2015 by Gabe Wright

I'll have to admit, when I saw we were doing the Myers-Briggs test today to learn about our personality types, I was a little skeptical. I believed that it was a bit of a pseudo-science that has gained popularity because people like classifying themselves into boxes saying "This is what I am!" This view was bolstered by the fact that one of my fellow REU participants said something along the lines of 'I've taken the test 5 times and have gotten 5 different personality types'. But, since it was one of our activities for the morning (and because I was curious as to what it had to say about me) I took it (two of them actually). My first result was ENFP and my second was ENTP.

Both results fit decently well with the way that I see myself. My peers were a little surprised that I was an extrovert, but that's probably because we are still in the beginning stages of getting to know each other (and they must not have done too much facebook creeping yet – I don't think any member of Cobber Nation could survive very long if they were introverted). I would go into more detail about how I fit as an ENFP, but I'm running out of time…

Long story short, there may be something to personality-typing after all. I still believe that trying to fit all humans into one of 16 personality types is a fool's errand. No one is just one thing, we are all composed of many different elements. However, by using tests such as the Myers-Briggs we can get glimpse of a large portion of what make us… us.

Preparing for an ExCYting Summer

Posted on May 28, 2015 by Gabe Wright

I came into this summer full of questions about what was in store for me in the SPIRE-EIT program (Summer Program for Interdisciplinary Research and Education in Emerging Interface Technologies, if you were curious, but I'll stick with the acronym). Two days in and I'm still full of questions, but a picture for my summer is starting to take shape. I've met my roommates, mentors, and fellow interns and they seem like good group of people (and I promise I'm not just writing that because they will be reading this). My brief wanderings around Ames has revealed a community that I feel I will have no problem calling home for the next two months.

Then theres the program itself. It is being held in the VRAC (Virtual Reality Applications Center – I know, more acronyms), which contains all the gadgets you could possibly want, including the highest definition virtual reality machine in the world. THE WORLD. My particular research project deals with developing printable sensors that will be utilized in clothing to read biomarkers in someone's sweat to try and diagnose a variety of conditions (dehydration, muscle fatigue, etc.). The intriguing implications of this research will more than likely be the topic of another day's blog post.

One final note, we were supposed to comment on which superpower we would rather have, flight or invisibility. Flight. The correct answer is flight. You'd be hard pressed to convince me otherwise.