



AUTHOR: EEDGAR

August 6, 2022 by eedgar

Saturday Morning

Dorm Room: Echoey

Living Room: Silent

Cupboards: Empty

VRAC spinny chair: Still

VRAC desk: Unused

VRAC: Quieter

Heart: Full

Knowledge: Acquired

Altitude: currently 0ft (will be 30,000 ft in about 5 hours)

August 6, 2022 by eedgar

Last Time in VRAC! (At least for now :))

As I write this, I sit, kneeling, on the carpet because someone stole my chair lol, as I write this blog. In about 5 minutes time, we will go outside to take a picture in front of the C6 with my little disposable camera and go through those front doors one last time. I feel like something big and momentous is coming to a close and if I look back I won't have the strength to keep walking forward out those front doors and through the bus doors which will take me home. I have found a family and I thank each and every one of you in VRAC because you made this summer so special!!! I knew that coming into the office meant I would see smiling faces, I would get to laugh with someone and even if I was very stressed, someone would be there to help out or cheer me up or teach me. It was the best. I hear everyone starting to move out so I have to go but I will cherish this summer and everything I have learned and all my new friends. Thank you!!!!!!!

Bye for now

-Emma



Farhan and Grace after our special Farewell Lunch with the whole VRAC crew.



Symposium Time!

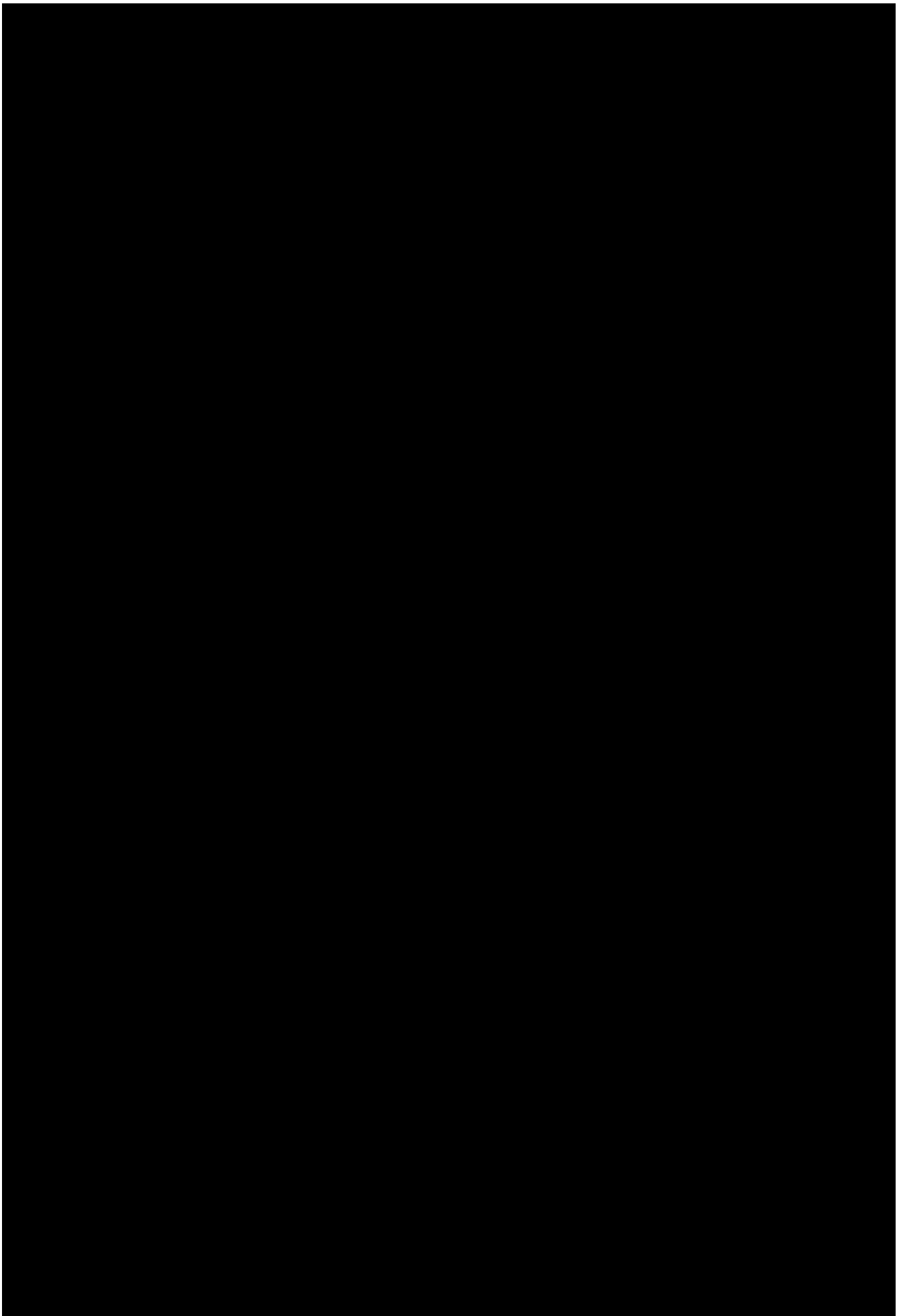
August 4, 2022 by eedgar



Today is Recording Day!!!



Paul interviewing me in the Student Innovation center





Hanging out and preparing for the videographer! 😊

August 3, 2022 by eedgar

Our Final Week Here

This week begins to wrap up our 10 week REU experience here in Ames, Iowa, in the VRAC of the Aerospace building. I'm going to really miss it.

Over the weekend, we celebrated @Eli's birthday by going to Adventureland. It was a bunch of fun, though hot. I learned a couple of things that day.

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|--|--|--|
| 1) You can not win a battle against the sun....not matter how hard you try. I have never burnt my calves before but I guess 4 hours in the pool does that. No Bueno. | 2) I have learned many things about myself this summer and here is another one to add to that list: I do not. like. drop. waterslides. I don't know what they are actually called, but those ones where you push off and go WEEEEEEEEEEEEEE in free fall. yeah no. no bueno. | 3) I did, however, learn that roller coasters are enjoyable. All except those upside down ones. I don't know if I will ever try those. |
|--|--|--|

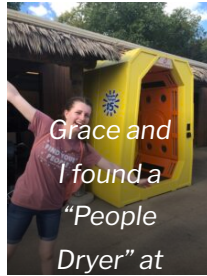
We got Macubana for dinner and then surprised @Eli for his birthday. It took some coordination but he seemed really happy and that made me really happy to see someone else that happy.

On Sunday...what did I do Sunday....I put together a mini Soundwalk for @Thomas to try out. It wasn't the best because the music didn't exactly match the landscape but it still works. I made One Dish Wonder (rice and beans / crushed tomatoes / ground beef Family Dish) and I thought it was too acidic....so me being a science kid, I made it more basic by

adding a pinch of baking soda. Bad Idea. It got way too basic and it ended up fizzing in my mouth. I learned my lesson. Later in the evening, I took a walk and sat outside for a while, contemplating the summer. When I came back inside, I played Overcooked 2 and it Takes Two with @Thomas and @Eli. Another thing I learned this summer: video games are harder than they look and I have no idea how to press more than 2 buttons at a time on a game controller.

Monday rolled around and brought with it the bittersweet emotions of the beginning of the end. We worked hard on our poster to get it ready to be printed. Aligning text boxes, making text boxes bigger, editing text, re-aligning everything, adding a screenshot, editing the graph and re-adding that screenshot, taking out a whole section then putting it back in, “can you move it like a millimeter that way?”, changing the order of bullet points, proofreading...you get the idea. I like this kind of design though so I enjoyed it. Monday evening, I went to check out the Vintage Vinyl store in the mall! It was so cool! and I am contemplating getting a record player. Records sound so cool. I got home, had a virtual dance lesson (gym member ships expired and they wouldn't let us in 😞), then worked with @Thomas and @Eli to keep improving our poster until 11pm when I called it quits because I couldn't keep my eyes open.

Yesterday, Tuesday, was a good day. I sat in the JB conference room for hours trying to get my speech delivery down. I am still self conscious of how much I am talking and get worried about all the details I think I throw out there when I speak. I am using this poster session as an opportunity to improve my speaking and conversation skills and I am very excited. Public speaking doesn't intimidate me and I won't let it. As I was practicing, I was going through each section, finding the most important processes, results or data to mention and wrote down a very short list for each section. After a while, @Jack encouraged me to go to the Hub with everyone and I am glad I did.



P.S. best wishes to those who are trying to figure out these photo things on wordpress. I couldn't explain it if my life depended on it and it doesn't seem to be working too well. 😂

Bye for now

-Emma 😊

July 28, 2022 by eedgar

Learning to do things the right way – Grad School Edition

To preface this post, I want to explain the context behind my thoughts. When I am feeling strongly about something, I like to write poetically. Normally on these posts, I write about my daily work but I decided the best way to sort through my thoughts was by writing, and that I might as well post what I have written instead of yet another daily schedule. Another note, I *actually* wrote this last week and have taken some more time to compose my thoughts.

I have had some major enlightenments. Honestly, the past 24 hours has been filled with philosophical revelations. Maybe its all the caffeine in this Matcha latte. I also get hyper

and my eyes get real big when I'm excited about something. Meriem said she expects me to just start shaking because I seem so hyper.

My *new and improved* thoughts about grad school.

- My original plan (that I invented about 3 weeks ago while here at ISU) was to switch my major to a Software Engineering BS/MS program. At RIT, most bachelors are five year programs except my current major, HCC, which is four years. If I was going to add one more year to my undergrad, I might as well stay for an extra one and get a masters out of it. So that would be six more years there, seven total. Then I would apply to grad school at the VRAC and etc. Get a master in HCI+some interesting concentration I find. Then get a PhD because I love learning.
- I don't plan on teaching, I just want to do this because I am enjoying my time here at the REU.

Why I wanted 2 masters and PhD

- I want to learn
- I am curious and saw masters programs as a way to satisfy that curiosity
- It wouldn't be that hard to just do one more year at RIT for masters SE, then go get a masters and PhD somewhere else.
- In my mind, 2 masters sounded impressive

Jack and others have convinced me to not do 3 grad school programs, and here are some things I've been thinking about...

- Maybe don't get two masters? No more 5+1, masters, then PhD.
- 2 PhDs is different than 2 masters.
- Lots more degrees wont get you a better pay rate.
- People can be bad at what they do, even if they have a PhD.
- You can learn some/most content in a Masters program by yourself? Maybe?
- Bachelors is learning how you learn, Masters encourages you to learn how to teach yourself, PhD is to apply to "learning to teach and learn" to do research.
- PhD is very open ended. Get more PhDs instead of masters.
- It is okay and normal to do a Bachelors, then PhD. This is not a bad thing.
- Doing a masters and PhD all in one is a cool thing to do.

That's mostly all I can think of right now. I will continue to sort through my thoughts.



I have decided that I will not do two masters programs. On one hand, I love learning (pro for 2 masters) but I don't want to burn out (con for 2 masters). Once I have my mind set on a new height, it is very hard for me to throw it away. But its better to realize "I probably shouldn't be doing this" now than in the middle of the plan. And I am normally ok with failure, I just always want to have a reason/explanation, and until a couple days ago, these reasons don't seem like enough justification to me. When I give up (aka switch to an alternate path), its because there truly no way ahead. In terms of getting 2 masters, the pros outweighed the cons, in my head. I saw the path ahead of me. Everyone else said otherwise.

This line of thinking led me on a whole multiday though tangent: "Where do I draw the line?" . When do I listen to other people who are telling me no? How do I listen to people when I am deadset in my own beliefs? I have gotten myself stuck in the mindset of charging ahead full force to accomplish more and more and not letting doubt get in the way.....when do I accept that those doubts are reality?

Understanding these concepts became clearer when I thought about the experience these mentors have had. They became clearer when I let down my walls a little bit, just enough to earnestly listen and not just hear the noise. They became clearer when I allowed myself to see the straight forward path instead of the twisted one I created.

More thoughts to come soon

Bye for now

-Emma

July 28, 2022 by eedgar

Second half of last week (actually last last week)

Wednesday, 7/13 – Aside from our etiquette luncheon, it was a slow day. I have been thinking about a new keyboard all day. I think I would really like having a membrane keyboard. But back to the luncheon, I really enjoyed myself. I enjoy playing both sides of the coin; sometimes dressing up super fancy, black tie dress code, etc etc, for an elegant function (hence my sport being competitive ballroom dancing). But also, I am always game for mucking out stalls at a horse barn with the smell and the flies (ok well not alllll them time, but you get the idea. Rev War reenacting camping with no modern equipment might be a better example) I like both. So I was eager to learn some etiquette I didn't already know. You never know when you will need it.

Later, we met with Yvonne to discuss writing our paper. I walked away from that meeting with a sense of 🤔🤔🤔🤔🤔🤔 , 🤔 , and also some 😊😊. To take a page out of @Thomas' book, those emojis best describe how I am feeling.

Grace stopped by to ask if we wanted bubble tea and I said SURE. I needed a break. That bubble tea was delicious and afterwards the caffeine and sugar kicked in, and I continued working with vigor.

To sum up the weekend, there were 2.5 late night fire alarms, a day trip to Des Moines consisting of a farmers market with the most dogs ever (AHHHHHHHHHHH!) and amazing corn and mango, an escape room, a mall comparable in size to those in NY where I tried on a iridescent, sparkling prom dress just for fun as @Grace and I were actually looking for sun dresses, and a stop to Olive Garden where my stomach did not want to eat food.

It is now the next Monday morning, 7/18. @Thomas and I spent a couple hours reviewing our annotations and comparing them. Just now I can see him shaking

his head, probably in confusion and annoyance about the current team we are looking at (these players make rude comments).

It is now 7/28 and I have delayed posting this because life has gotten BU-SY!
Will post another update later.

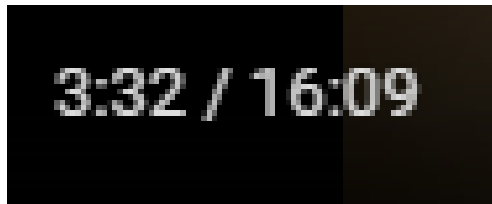
Bye for now!

— Emma

July 13, 2022 by eedgar

Corporate has asked you to find the difference between these two mechanics....

We spent 4.5 hours in the VRAC conference room on Saturday (minus a 45 minute coffee run to Dunkin) and we got 3 minutes of video annotated. Don't Starve Together is a very challenging game to annotate.



Timestamp of the Youtube video we were working on....after 4 hours of work

Every 5 seconds there was another mechanic to talk about and hence ensued another 10 minute discussion. Topics ranged from a basic re-definition of the construct to nuanced semantics of the English language. Needless to say we were having a GREAT time. A lot of our laughs originated from our caffeine filled brains. In several instances, we couldn't tell the difference between two different mechanics because they had similar descriptions and the behaviors we saw on screen. Our solution (very practical of course!)...make a universal language (hey team @Universal Interface!...thoughts?) I left the discussions

around 4pm to hastily get gym clothes from the apartment and get ready for a Zoom dance lesson. I thankfully found an open dance studio at the gym and had a lesson with my Dancesport Latin/Rhythm dance coach. For the past 4 years I have done competitive ballroom dancing in the “International Standard” style, but now I am branching into “International Latin” and “American Rhythm” since I will be leading the team this fall at RIT. Afterwards, I ran back home so I could have time to clean up and cook dinner before the group watched a disturbing documentary on Elizabeth Holmes and her company Theranos. I found her motivation inspiring but her hidden, internal motives quite concerning. The passion that Elizabeth had when she kept pushing her vision forward is admirable and for anyone to succeed the way she envisioned, you have to be a little crazy, but not as ignorant. In the right scenario, I think she could have gone very far, but I think her blind ambition was a wrong place, wrong time, wrong idea scenario.

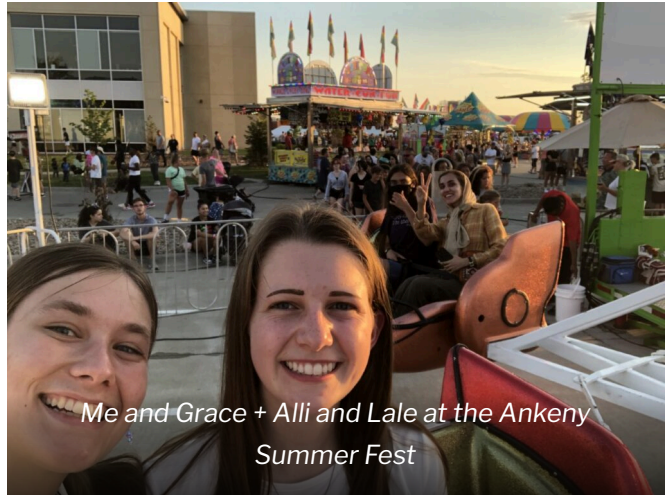
On Sunday, I came to the lab again after Mass with @Grace which was very nice. On my way in, I met Samantha, whom we met at Val’s bike shop. We talked for a bit while enjoying the nice morning air. Then, I met up with @Meriem to prep for the MCA presentations on Monday and we tried for hours to get the plotting functions to work but alas we were left with a black box of an algorithm and nothing on the other side. I am disappointed in myself for not figuring it out, because it seemed so simple and wasn’t even a complex theory, just semantics and syntax. Yesterday (Monday), we gave our MCA presentations. If I am completely honest, I felt awkward going into the presentation without any deliverables, just a plan to talk about our process. However, I think we did a good job of covering what we *did* do, given we had a week to write the project from scratch. If I could present again, I would talk much less about the image pre-processing and and take a couple of weeks to become even more familiar with how each algorithm (AlexNet and VGG16) works. Nonetheless, @Adam our mentor did a fabulous job of explaining the intricate ideas behind ML theory for the past two weeks.

Switching topics back to my main project on teamwork research, I want to talk a little about my research process. For improving the codebook, I watch videos of gameplay from several games (this entails watching each 30 second section several times, looking for different mechanics and associated behaviors), then I on my thoughts for that specific type of game and take notes during meetings. From my scattered thoughts comes a condensed document of “Codebook Suggested Changes”; my team and I collaborate on lists of all the improvements we wish to suggest and present them at every team meeting. In fact, @Thomas and @Eli and I have another meeting with @Yvonne in 8 minutes so I will sign off for now.

Oh, and I forgot, we went to the Ankeny summer fest on Sunday night and I had a blast!! I've never had a group of friends to hang out with at an event like this and it made me so happy to be with good people and eat good food. 😊



Roller skating with some people from the Math and BioMath REU groups!



Me and Grace + Alli and Lale at the Ankeny Summer Fest

Bye for now

-Emma

July 7, 2022 by eedgar

wordpress doesn't want me to write a blog today

soooooo I just typed out a whole essay of a blog post.

and I made the rookie mistake of not saving as I was writing

and when I clicked save draft, it got rid of my whole essay and said it was unable to save.

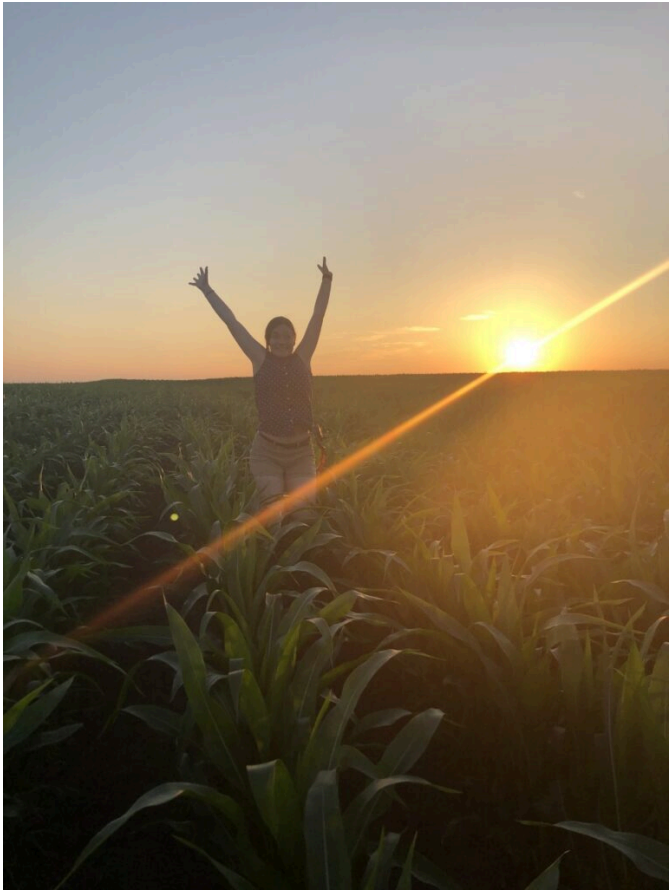
I will bullet a list of what I wanted to write about and expand if I have time later.

- MCA presentation got moved to Monday and that's awesome
- I'm trying to implement `train_test_split` and make batches for testing but this isn't going great.

- My VGG16 implementation gets 1.0 accuracy.....hrmmmmm.

- This past weekend was great. We watched fireworks for the 4th of July, I made banana bread that disappeared really fast, and had meetings for RDT(RIT Dancesport Team) which kinda stressed me out because we are planning for a competition next spring and fall recruitment and the whole E-Board is in different time zones.
- I ran through a cornfield and it was sublime. Very ethereal.
- I'm looking forward to this weekend because I need a brain break. I am roller skating with @Grace and some other people on Friday and we are going to the Ankeney summer fest on Sunday.

- Other than that, I will be annotating many more hours of gameplay because @Yvonne wants us to do 16 hours each within 2 weeks.
- We spent an hour this morning discussing 3 minutes of Overcooked....we will see how this goes.
- There was a mini 'derecho' a few days ago that wiped out the heat and brought humidity. I went outside and the wind was pretty cool. An uneventful storm though 😞 There was a very pretty sunset afterwards though, along with a double rainbow...I saw the end of the rainbow!



The sun was a paid actor-this is in a cornfield near Eli's house. We rode in the back of his dad's pickup it was GREAT



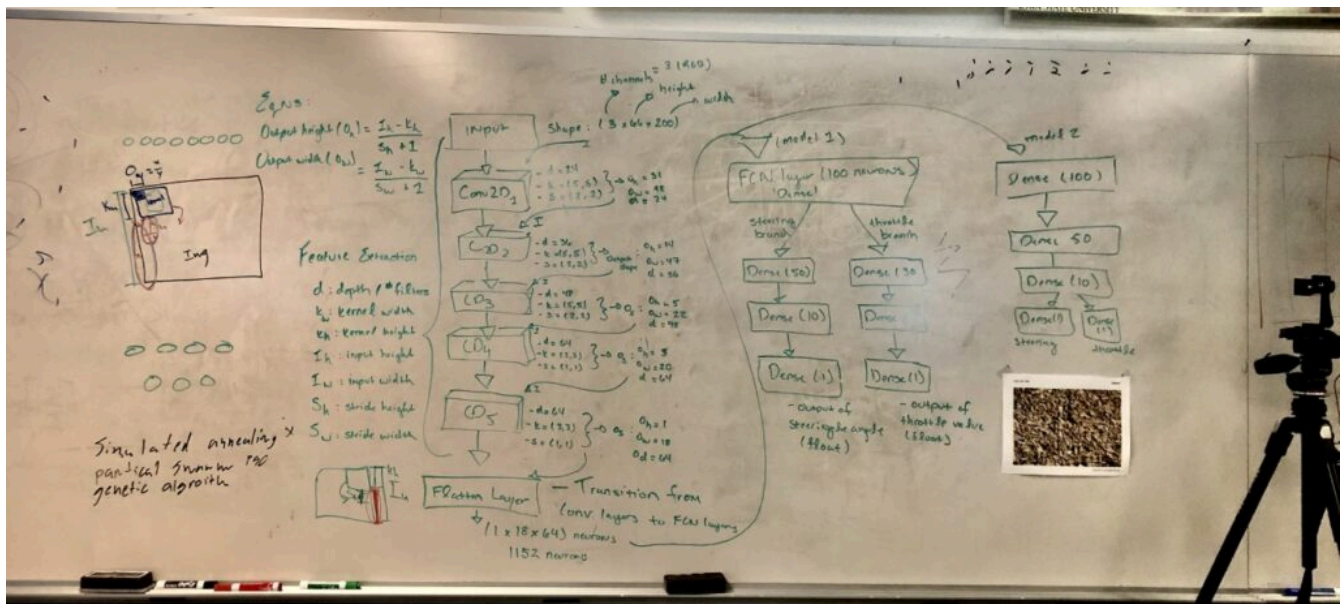
Bye for now

–Emma

June 30, 2022 by eedgar

ML ML ML ML ML ML ML ML ML ML ML ML ML ML
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ML.....

The only thing that has been running through my head for the past 48 hours has been about machine learning. My typical blog day, Wednesday, yesterday, was so full of machine learning that I forgot to blog. For all 8 hours I was in the lab yesterday, I was fixated on one thing. What the heck is machine learning? I am probably the newest newbie of the group since @Meriem is using machine learning to and @Farhan has taken two ML classes previously. I have heard words like convolution, deep learning, bias and neural network thrown around before, but never actually understood them. I still have a million questions and this will frequently lead to a Wikipedia spiral but I am proud of myself for learning as much as I have in the past 5 days. We started off just talking about data types and different libraries that are commonly used and we worked on installing those. Then we did some small demos, went through architecture types and how an image is actually processed. Yesterday, I was trying to conceptualize how an image is ‘flattened’ while staring at the white board for a while.



The whiteboard in question illustrating a CNN architecture for supervised(?) learning

I am finding it is easier to concentrate for 2 hours straight, take a little break, then get right back into it. My stamina is increasing. (though yesterday at 6pm I decided to call it quits when my eyes wouldn't focus on the article I was trying to read lol) This fast pace is very engaging.

On Tuesday, the lab was flooded with an acetone smell from somewhere. After about 45 minutes of the smell progressing from a minor inconvenience to headache-causing strong, we left the lab and @Eliot was very kind to take us on an impromptu bubble team excursion. I got a lychee milk tea with boba and yummm it was good. While we were walking back, I began to not feel good and went home to rest. I crashed and getting an afternoon nap was nice. I was totally fine the next morning.

About my main project, we are still annotating but we have updated the codebook, specifically definitions for some cooperative features. For example, is a shared obstacle a mechanic that both players must clear for the game to advance but it only requires the work of one person, or does the obstacle require both people working together just to clear the obstacle before passing to the next phase of the game. Answering questions like these will help us make the most complete game prototype we can.

We went to Memorial Union yesterday for lunch and I am sorry to hear that it will be closing for the summer in July. I liked the food and I wish we had discovered it sooner. Later today, a group of us are going to the waterpark to go swimming. I haven't been swimming in years because of COVID so I'm quite excited.

Bye for now!

–Emma 😊

June 27, 2022 by eedgar

We Are Being Very Productive TM

(in case you were wondering or had any doubts)

So I realized that I never posted my weekly update on Friday so I'll go through last week before going over the weekend.

(I'll be honest, so much has happened I forgot what we did on Wednesday)

Thursday – We stated off the morning being very productive....taking pictures. We took some really cool panoramas for our fun pictures however never got to the actual pictures we were supposed to take in the photoshoot. We will see if those actually happen today on Friday. The two photo set-ups included a “peek-a-boo” easter egg photo and a panorama of our office space. See if you can find us all in the first photo 😊 In the panorama, we wanted something where we are all in the midst of doing something and also wanted to appear multiple times. *LOOK RIGHT TO LEFT* So @Paul the IT/photo guy was very patient as we took 45 minutes to set up the tripod and retake it over and over. The scene begins with normal office work, talking between colleagues and slowly progresses a little off the rails (“We are very productive” on the whiteboard), spinning in the chairs. The final part of the scene ends with a ‘fight’ breaking out and everyone watching on. We had a luncheon lecture with Stephen Gilbert and he seems very personable and I enjoyed hearing his story. Then @Sarah and @Lynn were extremely sweet and motherly, and made us homemade breakfast for lunch and I think it was the best food I have gotten since I got here :). Thank you! Later in

the day, one of our 'mandatory fun' activities was going to a multicultural event as Moore Memorial Park. We met up with the REU's @Kat , @Eden and @David. We all played a photo scavenger hunt and I enjoyed getting to know them better. Then I met my parents and sister who flew out from Albany, NY to visit me and some local family.



Students from both REU groups participating in the scavenger hunt. VRAC REU in the front line with @Eli, @Farhan, @Grace and me. @Kat, @David and @Eden in the back.

Friday – I was assigned to the Machine Learning deeper dive with @Adam Kohl. This class was my last pick because I was intimidated. Its a horrible reason to avoid something but I did. Now, I am so glad that I got this group! I am very excited to be working on coding and learning basic machine learning standards and processes, on top of python and git management. So cool! After work, I met up with my family and spent a nice time with them. I didn't have much time between my semester finals and flying out to Ames, so I had a great weekend seeing them out here. I showed them Reiman Garden's (where a wedding was happening, so that was pretty cool) and we got gooood food yummm.

Now it is Monday which means early mornings and lots of sitting. In an icebox. I am trying so hard to not complain about the cold. But sometimes my amphibian instincts take over and my hands just go numb eiiii. I am planning on crocheting myself a pair of arm warmers this week. Preferably ones that have a pocket for the instant hot packs. Today, @Farhan helped me figure out git and @Jack provided some commentary and helped as well. The concept is starting to stick, though I do not understand why we can't just use something like google drive. I will have to spent a lot of time working on the annotating that @Yvonne just sent us this morning. I am not sure I can have a whole hour of annotating and a

summary of 6 articles done by tomorrow 10am but I will try. The annotating video game clips is getting ever so slightly easier.

Bye for now

-Emma