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<tr>
<td>Aaron Wells</td>
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<td>Ruth Riggs</td>
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<td>Ryan Cordner</td>
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<td>Stephanie Lutz</td>
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<td>Connor Tippetts, Exercise Science</td>
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<td>Elisabeth Birch, Medical Lab Science</td>
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*These stories were submitted by the students via survey. If your department is not represented, then we did not receive a suitable response from your interns. The college internship statistics only reflects internship courses where the students completed an internship application before enrolling.*
## DEPARTMENTS

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## COURSES

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768 INTERNS
2019: WINTER • SPRING/SUMMER • FALL

TOP 5 PROVIDERS

1. BYU On-Campus (90)
2. Huntsman World Senior Games (61)
3. Intermountain Healthcare Cardio Rehab (17)
4. Elite Fueling (17)
5. Utah County Health Department (16)

IN 25 TOTAL STATES

OFFICE OF EXPERIENTIAL LEARNING
I had the opportunity to intern at Maple Mountain High School as an athletic training student. I attended all the contact sport games (football, soccer, wrestling, basketball) and worked with the full time athletic trainer in first aid, emergency care, and injury assessment.

I also had the chance to work with all athletes in a clinic setting, before and after practices doing injury evaluation, taping/bracing for injury prevention, and rehab.

“I have become more confident and practiced as I continue forward in my athletic training degree.”

Leela Rowley assisting a player on the sidelines who sprained his wrist.
for athletes with current and previous injuries or surgeries. I was able to learn how to work with athletes, coaches, and administrators.

I was able to work with many different athletes in various sports; which has allowed me to become more confident and practiced as I continue forward in my athletic training degree.

I have taken classes in taping, upper and lower extremity injury evaluations, modality use, rehabilitation practices, first aid, as well as numerous anatomy and physiology courses. All of these classes helped me to have a base understanding and familiarity with the human body, how it functions, how it can be injured, and how it can be treated.
I loved my internship experience. Each Saturday, I would have a list of patients that I was to bring to therapy. Once I transferred them to therapy, I would do various exercises with them. These included: NuStep, pulleys, weight lifting, etc. It was so rewarding to be even a small part of someone’s recovery. Stonehenge is a facility that usually cares for the elderly population. I enjoyed working with these patients and my internship was vital in making the decision to pursue occupational therapy.

The most invaluable thing I learned from my internship is that I want to pursue occupational therapy. My time at Stonehenge really helped me to see how much I enjoy helping people with physical/occupational therapy.

I learned how to be a team player, how to follow instructions (from the PT), and how to treat my patients (or people in general) compassionately. I think that PDBIO 220, PDBIO 305, and Personal Training Strategies really helped me prepare for my internship. I was able to apply my knowledge of the human body at my internship. Because of my classes, I was more aware of what muscles were being used during each exercise.
As a surgical technologist, I was able to assist in the preoperative, peri-operative, and post-operative management of surgical procedures/maladies. I assisted in a wide variety of cases from the strong-armed orthopedic total joint replacements to the fine motor skills involved with removing spinal cord tumors. The variety of surgeries performed at this hospital gave me invaluable insights into what specialties interest me the most and how to offer the best patient experience in healthcare. I loved being able to see my work directly affect the patient’s outcome. I feel like my major helped me stand out as an intern because I had taken anatomy and other health-related classes that helped me understand patient care in a better light. Along with becoming a better communicator, I feel like I have become more efficient with my use of time. The pace of surgery is fast and it forces the surgical technologist to think and process faster than normal!
I LOVED my internship opportunity! I definitely developed a relationship with the patients, seeing them 2-3 times a week will do that. When I had to go I almost cried saying bye to some patients.

I loved learning about spinal health. I loved the people I worked with who were all so kind. It was like a small community. I learned the importance of good posture and keeping your head from drooping forward. Essentially, I learned the importance of chiropractics-- It affects your whole life, your immune system, your pain management, etc.

My major taught me about the importance of the spine and its essential elements first and foremost. I also learned how to interpret and relay important health information in a professional manner.

“I learned that chiropractics affects your whole life; your immune system, pain management, etc.”
EMILY LEHMAN
HUNTSMAN WORLD SENIOR GAMES

The game participants can find out vital information about their health and life and we as students get medical experience. I think the most useful thing was meeting new people and being able to teach them information they might not already know. It was a great way for me to learn and get hands on experience in the medical field with athletes in the games.

I have taken lots of biology and life science classes so I had lots of background information and could answer most questions that were asked about health, anatomy, or people in general.

This was a photo during the internship at the station where interns were testing balance and getting data for concussion research.

Left to right: Emily Lehman, Dr. Ron Hager (one of the professors in charge), and Amy Holt (fellow student intern).

Group of student volunteers from BYU, DSU, and UVU that participated in the medical screenings for the Huntsman World Senior Games.

READ MORE ABOUT EMILY’S STORY HERE

OFFICE OF EXPERIENTIAL LEARNING
EXERCISE SCIENCE | 8
I had the opportunity to work one on one with clients. I performed body analyses and helped them come up with a personalized plan to get to their goal.

I also taught group bootcamp classes to help increase cardiovascular endurance. I also created and implemented new, innovative ways to promote The Camp and build up clientele.

The most useful thing I learned was some valuable marketing strategies that helped me build up members at the Camp. I learned what goes into running a business and how to be professional in all of my actions.

Strl learned how to present myself to a larger audience. I went on TV to promote the Camp so I learned how to speak clearly and in a way that shows my knowledge and experience.

My personal training class prepared me to take the NASM exam, which allowed me to do this internship. I have the intention to grow into a management position in the company. I am integrating the management skills that I have learned

Kasey Giles organized a group of members to run the Spartan race. It helped them set performance goals. (Left to Right: Mckell Oldbull, Kasey Giles, Justine Connell, Sue Redington, Mike Redington)
from school and from my boss to show that I am prepared and able to fulfill that role.

I have taken classes in taping, upper and lower extremity injury evaluations, modality use, rehabilitation practices, first aid, as well as numerous anatomy and physiology courses. All of these classes helped me to have a base understanding and familiarity with the human body, how it functions, how it can be injured, and how it can be treated.

This is a group of some of the clients that Kasey Giles got to work with. This picture was taken right after she taught a lower body bootcamp class.
At Y Be Fit, I had the opportunity to meet weekly with clients and help them develop healthier lifestyles. This involved setting and following up on their goals, providing support, and teaching them about a variety of health topics. I also performed body composition and fitness assessments for clients.

“I feel like I am a better listener now, because...I have learned how to allow the clients to take the lead in changing their lives.”

The most useful thing I learned from my internship was motivational interviewing. The idea behind motivational interviewing is allowing the client to reach their own conclusions and find their own solutions to problems by asking them questions and letting them talk. I feel like I am a better listener now because rather than talking at clients I have learned how to allow them to take the lead in changing their lives.
My job was to assist with the animal care in the museum. There are several resident animals used for educational purposes, and I helped with the basic animal care each day. This included record keeping, feedings, and cleanings. I learned how to properly handle each specific animal, which was a variety of reptiles, their specific diet, temperatures, etc. I also planned and performed my own animal shows for the guests of the museum.

I learned a lot of proper animal care and information about each animal. I also learned a lot of tips that helped with the public speaking I had to do for the animal encounters, which were held in an auditorium.

I did a lot of record keeping, both written and digital, as well as keeping updated on supplies and when things would need to be replenished. I also picked up skills on interacting with guests of all ages, since the animal encounters are catered to children. Some courses I’ve taken have helped me understand and remember facts for different animals and with the handling of the animals.”
I specifically want to work with animals in the future, and this opportunity helped me learn a lot.

As part of my internship, I was asked to create school and public programs for the animal encounters. I had to use the standards of excellence to make appropriate school encounters and have themes for the public ones. I created my own, got feedback from others, and then performed the encounter for the public, and received more feedback, so I was able to adapt and improve my programs.

Yes I would recommend this internship. It was a very enjoyable internship. I specifically want to work with animals in the future, and this opportunity helped me learn a lot. I was able to learn about animal care in a basic sense, and even some medical cases.
So far, I've completed my phlebotomy and microbiology rotations, and will be starting my chemistry rotation prior to the end of the term.

In phlebotomy, I had the opportunity to draw blood from various patients in the outpatient clinic, which included verifying identification, and appropriately drawing blood in tubes in the correct order. I also assisted in processing in the core lab, where I helped organize specimens from all over the hospital and prepare them for various departments to run tests on.

In micro, I streaked samples to plates, prepared and read Gram and fungal stains, worked in the mycology and AFB lab, and helped identify organisms from every source in the lab, including setting up and running molecular diagnostics, antibiotic susceptibility panels, performing bench spot tests, and other necessary laboratory tests for clinical microbiology. I also learned the criteria for when to consider an organism and when to consider it a pathogen.

The practical application and hands-on experience of working in a laboratory; through working with real patient samples, I was able to experience the reality of laboratory work and the urgency with which diagnostics are performed. It was incredible to watch professionals interacting with other healthcare workers in order to provide the best care for the patients at our facility.

I learned how to use current analyzers and professional equipment that the lab on campus didn’t have due to restrictions on resources--the Mayo Clinic values research and innovation, so there were instruments designed to improve quality and accuracy in the lab that I had only ever seen in pictures and videos. It was an incredible experience.
I had a lot of lab courses that gave me experience with running laboratory spot tests and identifying organisms; although the setting was different, many of those practical skills helped me prove myself and represent BYU well.

"Every minute here has been invaluable, and I have developed so much confidence and competence in the six weeks that I’ve been here so far."

Drawing blood during my lab classes also prepared me for when I was drawing from patients who had varying attitudes regarding getting their blood drawn.

Intention: because my internship has direct bearing on my future career path, I have been very intentional about my actions and my attitude. I have chosen to take initiative and learn everything I can, to prove myself and to myself that I am competent and that this is a field that I can succeed in. I have received praise from those working with me regarding how willing I am to jump in and begin to lead on the tasks that must be completed, and I believe that using my experiences now to become confident in my ability to work independently has been a huge blessing.

Integration: my internship has me completely integrated into lab culture; I see my education coordinator once a week for my proctored exam, and outside of that time, I am completely integrated into the laboratory setting. Because of the nature of the profession, I am never left completely alone, but often lead in testing and performing tasks so that I can learn to the fullest.

Reflection: specifically, identifying organisms and reading plates has helped me reflect on my education thus far and how helpful my studies were in preparing me for this internship and occupation. I have also found opportunity to reflect on my future career path and consider what I can contribute to a laboratory.

I 100% recommend this internship! Laboratory work is dependent on hands-on experience, and getting the full, 40-hour week experience. interacting with patient samples and professional scientists has been valuable to me both as a student and a scientist.
The BIOMedRap program cares not just about our academic performance and our research capabilities. It also cares about who we are as people and is looking to bring people together to solve big problems. I leaned a lot more about how to do that through classes and lectures and in my research lab where I was able to get results from my experiments. These results were then printed on a poster that I could present at the closing poster symposium.

The most useful thing I learned was how to critically read research papers and understand where their science is lacking. I learned communication, critical thinking, and tenacity. I did not take courses that specifically prepared me for this internship other than general science classes so I had the information I needed to understand the science of the internship. During this internship I wanted to become a better scientist and this intention was quickly reshaped as I learned that good scientists are also people who focus on being a good person.

I then integrated this into my goals for the summer and would review who I was as a person after ethics classes and the like. From this I could reflect on how I was progressing and continually strived to be better throughout the summer.

Allen Weinert exploring the Missouri botanical gardens during some rare time off.

Allen Weinert presenting at the closing symposium.
My internship centered around developing a working model for predicting the accuracy of genetic testing results based on technical specifications provided by medical testing laboratories. I was mentored by the CEO of the company to refine the math I developed and then to apply the model to various specific
genetic testing scenarios. She used her industry experience and contacts in the field to provide real data for me to verify my model. We are preparing to publish the accuracy calculator in order to help medical providers and patients better understand the implications of their genetic test results.

“I was mentored by the CEO of the company to refine the math I developed and then to apply the model to various specific genetic testing scenarios.”

The most useful thing I learned in my internship was the ability to flexibly apply my knowledge of genetics to business scenarios. I also found that the ability to use the internet to learn new skills in order to solve problems was very useful.

I became much more proficient with Excel in order to develop genetic models. They gave me a necessary background to understanding the industry I was working in, as well as the credibility for others to show that I knew what I was talking about.

I didn’t have specific personal goals for what I wanted to accomplish during the internship besides learning about the genetics industry, but my supervisor helped me to develop specific project goals and work to achieve them.

I frequently had to use knowledge from my advanced molecular biology classes and genetics classes to understand and contribute to the conversations around me. I also had to apply statistics and modelling concepts from my econometrics classes. I was very grateful for the preparation that I had from my classes. It was helpful to talk with my supervisor and look back over what I was accomplishing and see the impacts of what I was doing.

Sometimes I worked remotely, and the company was very flexible with vacation time as long as I made up hours.

“I frequently had to use knowledge from my molecular biology and genetics classes to understand and contribute to conversations.”

READ MORE ABOUT HUNTER’S STORY HERE
I was able to work hand in hand with Dr. Cook trying to see what we can do about the Honeybee epidemic. All over the country, and even the world, honeybee number are dropping due to infections, stress, and other unknown causes.

Honeybees are a very important pollinator, not only for the environment but also for the economy. Honeybees travel around the country in order to provide their pollination services so that we can eat the crops that we eat. During this period of moving, bees experience a great deal of stress. Dr. Cook and I tested a compound to see if it would help decrease their stress response due to the trapped heat in the hives, and the low oxygen environment. The plan is to look at their genetic expression and see what kind of difference was made, but the research is still ongoing.

With this internship, I think that the most valuable experience that I’ve learned was being able to keep all of my data and
experiment parts organized. There were a lot of moving parts in this experiment and we have a lot of replicates, genes, and variables that are all coming down together. It’s definitely a lot to keep up with, but hopefully, with all of this new data, we’ll be able to help beekeepers across the country continue to share their passion and livelihood with others.

“**I get to take what I learned in the classroom and put it into play with all of these fantastic minds here at the USDA.”**

Because I got to play so many different roles at the USDA, I got exposed to so many different aspects of good beekeeping practice and the research aspect of things.

I got to refine my laboratory skills with simple things such as pipetting and some newer procedures such as synthesizing cDNA. I’m not sure if I want to get into beekeeping, but being able to work with these magnificent creatures in their habitat was amazing and I got to be a part of their life and see the magic at work.

By working with other experienced scientists I got to learn about the daily life of bees and I was able to try my hand at many new and familiar biological assays. From the classes that I’ve learned at BYU, I’ve learned a lot of the background of the genetic response. I think that part of why I think this internship has been so cool is because I get to take what I learned in the classroom and put it into play with all of these fantastic minds here at the USDA. We’re studying the genes and seeing how they’re expressed. Some of the genes have been studied for a long time, but some haven’t had as much research done on them so it’s been fascinating to figure out what their exact function is and how the bees react in this experiment.

Throughout the internship, we have to constantly assess what we are doing. We are doing work that’s never been done before, so in order to make sure that we aren't wasting time or resources, we are always trying to adapt and learn. We also take what we have learned and take careful notes, so that we can come back and reflect on what we’ve discovered.
My internship has been unbelievable. I did not realize coming into the internship that besides being able to do what I love, I would also be welcomed so warmly to the lab.

Most of my internship I worked under a post-doc, Rinki, who was from India. She trusted me to perform a lot of her own experiments which provided me with a hands on learning experience.

“I learned so many important things about working in a lab that I can take with me as I move on to graduate school next fall.”

Because she trusted me to do what she asked of me, treating me as a fellow scientist, I felt empowered rather than unqualified. The work we did was with Cytomegalovirus (CMV). In particular, we were trying to determine the function and interactions of a CMV protein that has limited coverage in the literature.

I was involved in every aspect of Rinki’s project. I worked in cell culture, propagated and harvested virus, imaged samples with the confocal microscope,
ran RT-PCR and many western blots, was involved with much of the DNA cloning process and much more.

We had some promising results, but this work is still in its infancy and so no major breakthroughs were made. Despite this I learned so many important things about working in a lab that I can take with me as I move on to graduate school next fall.

I learned how vital it is in research to keep an organized and detailed lab notebook. Not every day follows exactly from the previous one. If you do not document everything you do, you will have no idea where you left off or what you need to do next.

In science, troubleshooting is absolutely critical! If you do not known what you did, you will not be able to fix it the next time. There were plenty of times that others in the lab (or I myself) referred to my notebook to find out what I had done or where I had put a particular sample. Because of this, I really focused throughout my internship on keeping
my notebook current and as exhaustive as possible in preparation for a more unassisted research experience in grad school.

Everything that I have learned in my microbiology classes at BYU was somehow related to what I did at Penn State. I was very nervous at first before I arrived for my internship because I had some, but not extensive lab experience.

A number of scientific protocols take advantage of the basic molecular mechanisms that we learn about in our classes to obtain a result. It was an easy jump to learn to perform the protocols and learn how they work with the textbook knowledge I already had. I learned to think critically about research in the classroom so that I could be critical and questioning of any scientific research I do. Many times during my internship I intentionally was able to perform a procedure knowing what type of result I wanted to receive.

I was also able to reflect on some of the results I had received from certain experiments and try to draw conclusions about them and determine how they relate to other results I had previously obtained.

“Troubleshooting is absolutely critical! If you do not know what you did, you will not be able to fix it the next time.”

From my microbiology classes, I was able to integrate what I had learned in the classroom to the research I was doing in order to ask appropriate questions.
The highlights of my internship experience are three fold:

(1) being able to work with children on a daily basis and thank them all individually for playing such a crucially important part in a research study that will benefit the whole world, (2) getting hands-on training and experience in medical research, and (3) being surrounded by amazing, accomplished, and excellent mentors.

Such mentors include Deborah Yurgelun-Todd, Perry Renshaw, Rebecca Huber, and all of the other staff and fellow research assistants that taught me so much about the importance of our work and how to carry out research in a way that will produce accurate conclusions and results.

This experience as a research assistant in the Cognitive Neuroimaging Laboratory at University Neuropsychiatric was much more than I had ever anticipated. It provided such a valuable platform for me upon which I can continue my interest in neuropsychiatric and neuroscientific research. My fascination has only heightened because of this experience!

Several of my courses prepared me for my internship - specifically PSYCH 111 and BIO 130. PSYCH 111 taught me the fundamentals of psychiatric research and how it is to be performed. BIO 130 taught me what exactly is going on inside of the body that allows for these changes to occur.

“It provided such a valuable platform for me upon which I can continue my interest in research.”
This summer I returned to Dr. Westover’s lab at Massachusetts General, where I measured the night-to-night stability of a machine learning algorithm that calculates patients’ brain age from patient brain scans (electroencephalograms, or EEG).

The basis of our research is that brain wave patterns during sleep change as a patient ages. Therefore, we had to remove segments where the patient was awake first. To remove these segments, I applied a blink-detection algorithm. Next, I calculated brain age and determined the night-to-night variability of the algorithm and established clinical applications. Our results show that EEG-based brain age estimate is an accurate bio-marker for aging when estimates from multiple nights are averaged. I’m currently working to prepare a manuscript for a peer-reviewed journal detailing these results.

I believe that the ability to discern and analyze scientific problems using novel methods such as artificial intelligence will provide a strong foundation for a career as a clinical researcher. The professional
This was a little painful, but the second and third rejections even more so. As I am now preparing to submit again, I realize I have learned valuable lessons about writing and the research process from each resubmission.

Feedback from reviewers taught me more about the research process. These rejections also highlighted the importance of carefully choosing a research methodology, taught me more about modeling and inference, and gave me experience clearly communicating scientific results.

Even more importantly, I learned the value of getting different opinions to find the best solutions and of trying new approaches. My first reaction to rejection was disappointment and defensiveness, but I worked to adopt a growth mindset and see their comments as ways to learn more about neurology and statistics. This process has not only increased my knowledge and writing experience, but my ability to reflect on my work and look for ways I can improve.

I would highly recommend this internship to other students! Through this internship the past two years I’ve gained experience drafting manuscripts for

skills I gained include interviewing experience for medical schools, technical writing through drafting abstracts and manuscripts, and research presentation through presenting the results of my research at MGH last year, and preparing to present in Vancouver this year.

I also developed the ability to explain my ideas clearly to others without a computational background, and to work with interdisciplinary teams to find the most effective solution. Bioinformatics 165 provided a basis in Python that I expanded on when I started my internship last summer. Additionally, my experience with CS240 helped me manage and adequately design a large coding project to ensure it ran correctly and was straightforward and easily explainable.

Last summer I learned the basics of causal inference and neurology and worked hard to write up a manuscript for publication. Late nights, frequent correspondence with neurologists, and several edits resulted in a first submission. As this was my first time preparing for publication, the end result seemed incredible to me.

However, I faced the realities of academia when the paper was rejected.
publication as co-first author (1 has been submitted and 1 will soon be submitted), prepare an abstract for the Neurocritical Care Society conference I’ll attend in Vancouver this fall. I’ve also learned about artificial intelligence, different methods of statistical and causal modeling, and EEG signal processing.

Our internship coordinator, Britlyn Orgill, is an attending anesthesiologist at Massachusetts General Hospital and BYU alum. She’s passionate about helping all students succeed and plans dinners each week with Harvard researchers, doctors, medical students, and residents. She also set up mock interviews with former admissions committee members at BU School of Medicine and the U School of Medicine and has helped with secondary essays.
The purpose of the agency I was working with is to identify all United States Service Members to fulfill our nation’s promise that no man is left behind. Their focus as of right now is working on identifying those lost in conflicts dating back to WWII.

My experience was great. I did a number of different things corresponding with not only my major and minor but also with other educational experience I have going more into the medical field. With regards to my major, I was able to prepare bone samples for DNA, histologist and isotopic testing.

For my minor, I dealt with doing research to find living family members of service members that were identified decades previously to return personal effects still in the agencies possession, find pictures of service members who had recently been identified, inputting data into databases, and gathering records on recently identified service members.

Before deciding to major in Genetics, I was originally interested in going into the medical field, which led me to study subjects and take classes such as human anatomy. This came in handy as I also had the opportunity to clean remains (bones) of disinterred unknown soldiers as well as lay out skeletons as they came in.

I also had the opportunity to observe anthropologists as they analyzed the bones and was able to learn more about osteology and important things to look for on skeletal remains.

The most useful thing I learned from my internship is the importance of communication and knowing what resources (sometimes they may be coworkers) you have and how and when to use them.

Going into a job, you won’t know everything you need to know to accomplish...
everything. Know that there are people who have been there longer and others who are specialized in different fields that are more than willing to help and who might come to you with questions as well. My family history courses gave me the resources and experience I needed to accomplish the research I was tasked to accomplish.

This internship helped me to better understand and apply concepts and techniques I learn in my genetics and chemistry classes. My anatomy class helped with my understanding and familiarity with skeletal remains.

“During my internship, I had the opportunity to witness a few different ceremonies. I took this picture after the Repatriation and Honorable Carry Ceremony of at least 22 service members who died during WWII in Tarawa. This was the first time they had been on US soil in over 75 years. It was an amazing opportunity to welcome them home after decades of being abroad.”

A Repatriation and Honorable Carry Ceremony performed during Jill Daker’s time as an intern.
As a medical scribe, it was my responsibility to complete the medical documentation for every patient that came into the emergency room. I followed the physicians and their mid-levels into each patient's room to take notes on the history of present illness, review of systems, past medical history and physical examination. My work was beneficial to the physicians because it gave them more time to focus on patient care and also prevented them from staying over their shifts to catch up on their patients' medical charts.

Anatomy prepared me to spell and recognize medical terms extremely well. For example, the doctor might tell me that a patient's "sternocleidomastoid" muscle was tender to palpation, and I would both know which muscle he was talking about and how to spell it correctly in my chart. Basic chemistry was also useful to know the chemical symbols for sodium, potassium, chloride, and other electrolytes. My Physiology of Drug Mechanisms course was the most useful. This class helped me recognize drug names and uses that helped me document the past medical histories of the patients in the Emergency Room.

Taylor Davis visiting different medical schools that he applied to.

I included this picture of visiting a medical school campus, I attribute my acceptance into medical school to working in an ER for 2 years. Without this internship, I would not have had the clinical experience needed to get into medical school. I was able to speak with my interviewers at every school about his experience scribing in the ER.
I helped the bioinformaticians at the Utah Public Health Laboratory with various tasks and projects. The biggest project I did was to write a module for the Multiqc program. My module visualized data obtained from cleaning DNA samples. I also did research about plasmid databases and implemented a compiled database in our sequencing pipeline.

"My work was applicable to their company and to my learning."

I learned how to learn. I was thrown into complicated coding in github, python, r, and using a linux command line with very little prior knowledge. I was doing work that the bioinformaticians were going to do but didn’t have time. I was so grateful to learn how work in systems and languages that I don’t know.

The skills I learned include how to work in high pressure situations and how to communicate with professionals around the world. They gave me the fundamentals in coding and biology that helped me understand not only the work I was doing, but also the work that the laboratorians were doing to get the DNA ready for analysis.

Integration was particularly applicable to the internship because all my projects were designed to help the bioinformaticians in the lab. I was helping them with what they were doing and felt like my work was applicable to their company and to my learning.

Elizabeth Cook in front of the Utah Public Health Lab.
My internship gave me a hands-on experience in working with youth and minority populations. As an intern at the South Franklin Community Center, I had the opportunity to develop the curriculum for a summer camp that was designed to increase personal and community resilience among residents in the South Franklin neighborhood.

My role was the Health Program Lead, meaning I was in charge of developing and teaching activities that would increase physical and mental health among the camp participants. In coordination with my fellow interns, we were able to build a public community garden at a local park to facilitate physical activity and social interaction.

Perhaps the most useful thing I learned during my internship was the fact that public health efforts, even if seemingly small, have the ability to change people’s
lives. Even in my short time as an intern at the community center I was able to see the impact of the youth summer program I helped develop and teach.

Kids that were withdrawn or uninterested became more social and interactive with the other children; local residents became more receptive to the programs of the community center and became more involved in its programs; and most importantly, the kids increased their own resilience in their efforts to build an environment that facilitated community bonding and belonging.

In regards to professional skills that I developed I would say that I learned effective project management. Health programs are often complex and require a dynamic group of people to create, implement, and evaluate health initiatives. Though my health program was not incredibly complex, it did teach me how to be a better leader, be proactive without overstepping boundaries, collaborate with non-profits, managers, and coworkers, and finally, transform data into a program that would serve to meet the needs of a community. My courses prepared me for my internship by giving me the skills needed to develop health programs and run them with efficiency. Additionally, through my coursework I have learned how to work in teams, which in this internship proved invaluable. After all, learning the skills of being a team player and managing a healthy group dynamic is crucial to all aspects of public health.
My internship was based on providing affordable housing to low income families. I needed to review files of the tenants as well as make sure that all the required forms and documents were there and correct.

I also was in charge of providing documents for the auditors. I also was in a lot of trainings to know the ins and outs of what happens in affordable housing and the laws that are in place.

The most useful thing I learned was how much public health is in everything that we do. It is in almost every business because people are involved and their health is important.

I also learned professionalism itself. Research papers are one thing but communicating professionally with others is huge and something you do not learn in school.
My internship has been quite the experience – I have been working as an emergency room scribe at Timpanogos Regional Hospital for the doctors there. I chart and record physician dictations into an electronic medical record, including the history of present illness, risk factors, review of organ systems, past medical history, physical exams, lab and imaging results, emergency procedures, and the patient course and diagnosis.

My purpose as a scribe is to provide the physicians with more time to spend with patients and medical decision making, rather than time spent charting on the computer.

This experience provided me the opportunity of being constantly around patients and seeing the entire process from checking in to being sent home. I was able to see what it’s like as an ER physician, including all the stress, decision-making, and team-leading that goes on. It was eye-opening, to say the least.

Getting to see the wheels turning in the mind of the ER doctor – interpreting data; reading labs, scans, and EKGs; consulting with other physicians; interacting with the nursing staff, respiratory team, and radiology department – all of it, was everything I could ever have hoped for. I had a front-row seat to learning about the work/life balance of an ER doctor and what that would look like in my life.

There have been few moments in my life as energizing as when the ER physician turned to me and said, “Now this is emergency medicine!”. With a grin on his face and a kick in his step, he ran from patient to patient, with me on his tail trying to keep up.

During the 20 minutes prior to the doctor making that comment, several patients checked-in to the emergency
department – three trauma patients from a high-speed freeway crash, two patients with possible strokes, one patient with a possible heart attack, and three psychiatric patients, two of whom reported suicidal ideation, along with the inevitable and constant cases of nose bleeds and suture removals. It was quite the scene.

Once codes began being called over the hospital intercom, respiratory teams, radiography teams, and a whole slew of on-call physicians, nurses, and other healthcare professionals popped up in the ER. Bodies swarmed in and out of rooms and piled into where they were needed most.

“The doctors in the ER are some of the most loving, caring people I have ever known, even in critical situations.”

Thankfully for the doctor, he had a mid-level and a mid-level student and they could all see patients, simultaneously. I was a little less thankful because it essentially means I have to scribe for three people at the same time. I was impressed. Not really with the capacity of the ER, nor the medical knowledge and prowess of the staff, nor the severity of the cases were dealing with (though they were indeed severe), and not the volume of patients walking through the door.

What impressed me was the doctor’s stoic demeanor while interacting with patients, amidst the (what appeared to me to be) chaos. It seemed that he made every patient with whom he spoke to feel like they were the only thing that mattered to him, that they were the only patient that he was going to see all day. That’s what impressed me: his level of sincerity and charisma in such stressful and time-sensitive circumstances.

In such situations, being the scribe can be very difficult. When there is so much going on, it’s hard to keep track of each patient while keeping the charts complete, appropriately billable, and legally accurate.

The physicians have to deal with a lot more information and critical thinking than I do, which is probably why their level-headedness stood out to me. I often feel stressed when the ER is busy, but it doesn’t seem to phase them. They focus
on the patient and what their needs are – how they are feeling and what they can do to best serve them.

The patients' experience with that physician was pleasant, it caused their anxiety to dissipate and gave the feeling that they were in good hands. I truly believe that it greatly affected their perception of the quality of care they received. This had a huge impact on me.

“I often feel stressed when the ER is busy, but it doesn’t seem to phase them. They focus on the patient and what their needs are.”

Before being in the emergency room, I imagined that the physicians would be intense and what some may call “hard-core”. What I’ve found is essentially the opposite – the doctors in the ER are some of the most loving, caring people I have ever known, even in critical situations.

They treat patients with respect and great care. The feeling grows inside me every day; I want to be like that as a physician. I want patients to have pleasant experiences when they see me; times that they look back upon with fondness and gratitude. I want to emulate these attributes in order to provide the very best experience for the patient.

Of the many things that I have learned (and will learn!) from working in the ER, this may very well be the most important takeaway I have. This insight will allow me to be a better physician and a better person in general. I'll forever be grateful for the experiences I've had with the physicians that I'm blessed to work with.
I worked with United Way’s South Franklin Community Center located in South Provo Boulders Community. This center was built in 2011 as a place for community members to gather socially and also to learn new skills to improve their lives.

South Franklin Community Center serves the boulders community and surrounding neighborhoods which are lower socioeconomically and typically qualify for economically disadvantaged school programs. Various programs are offered to improve the quality of living for community members including private music lessons, computer, health and food sense classes. Monthly community cafes offer a safe environment for people
to connect and strengthen community bonds.

My time with South Franklin was very fulfilling and meaningful as I have grown close to community members.

In preparation for my internship at South Franklin Community Center two courses prepared me very well for the work that I would do: program planning and evaluation methods.

Program planning taught me the concept of tailoring programs to the needs of the target population. It also taught me the skill of planning ahead all of the details before a program begins.

Program planning taught me the concept of preplanning, planning, and executing and working through each level of planning to maximize efficiency. I also learned the concept of root causes from program planning. Looking at the root cause of a problem has proved helpful in my time at South Franklin as there are many universal issues found in the community, but the root causes are the focus of many programs.

I also learned these skills in my evaluation method class with a more indepth look at how programs affect the participants through evaluation before and after a program.

I also learned the concept of connecting with people through digital media and stories from my health communications class. This was very useful for me because we connected with lots of community members over facebook and disseminated program information through reminder posts.
During my summer at Mayo Clinic I was involved in type one diabetes research. I spent the summer working with both doctors and pre-doctoral students in a lab that is using stem cell therapies to treat diabetes. I spent the summer differentiating stem cells into the various cell types found inside your pancreas. These clusters of cells are called islets and they produce insulin. I was working on co-culturing different cell types to create a designer islets, something that would respond to both glucose and insulin.

The most useful thing I learned was how scientific advances can go from bench top to beside in the clinic in just a few short years.

“I went on my internship to help me decide on a graduate degree and can say it really helped guide me...”

I developed laboratory skills that I wouldn’t have been given at BYU and networking opportunities that were unique to the Mayo Clinic. Health science gave me a good background of the needed biology skills and laboratory skills to work out in Minnesota under little supervision all summer.

I went on my internship to help me decide on a graduate degree and can say it really helped guide me to new places and people that helped me see what path to take moving forward. Mayo allowed me to interact with and ask questions to top scientists and physicians. That’s something you won’t find anywhere else. Even though you’re an intern there they treat you like an equal.

At the end of summer is a poster session where all of the other research fellows and myself, present our research.