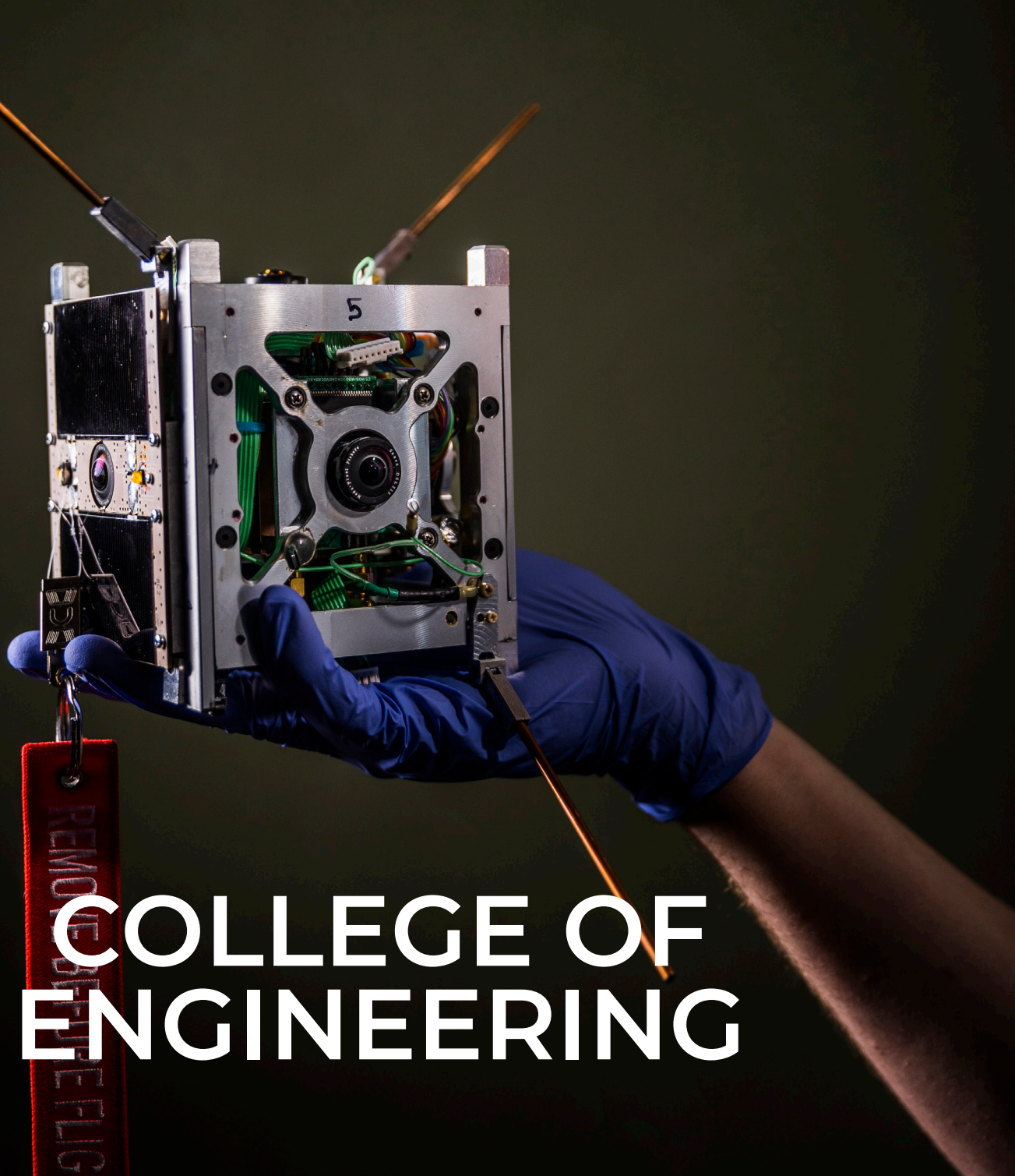


BYU EXPERIENTIAL LEARNING & INTERNSHIPS

2019 Stories & Spotlights



COLLEGE OF ENGINEERING

INTERNSHIP COORDINATORS

Bryan Howell	Industrial Design
Derek Hansen	Information Technology
D.J. Lee	Electrical & Computer Engineering
Geoff Wright	1 st Contact for College of E&T
Jay Christofferson	Construction & Facilities Management
Jeff Peters	Electrical & Computer Engineering
Kim Glade	Civil & Environmental Engineering
Kip Christensen	Technology & Engineering Studies
Lavdie Huff	Chemical Engineering
Lisa Barrager	Manufacturing Engineering
Samuel A. Cardenas	School of Technology Programs
Tracy Nelson	Mechanical Engineering

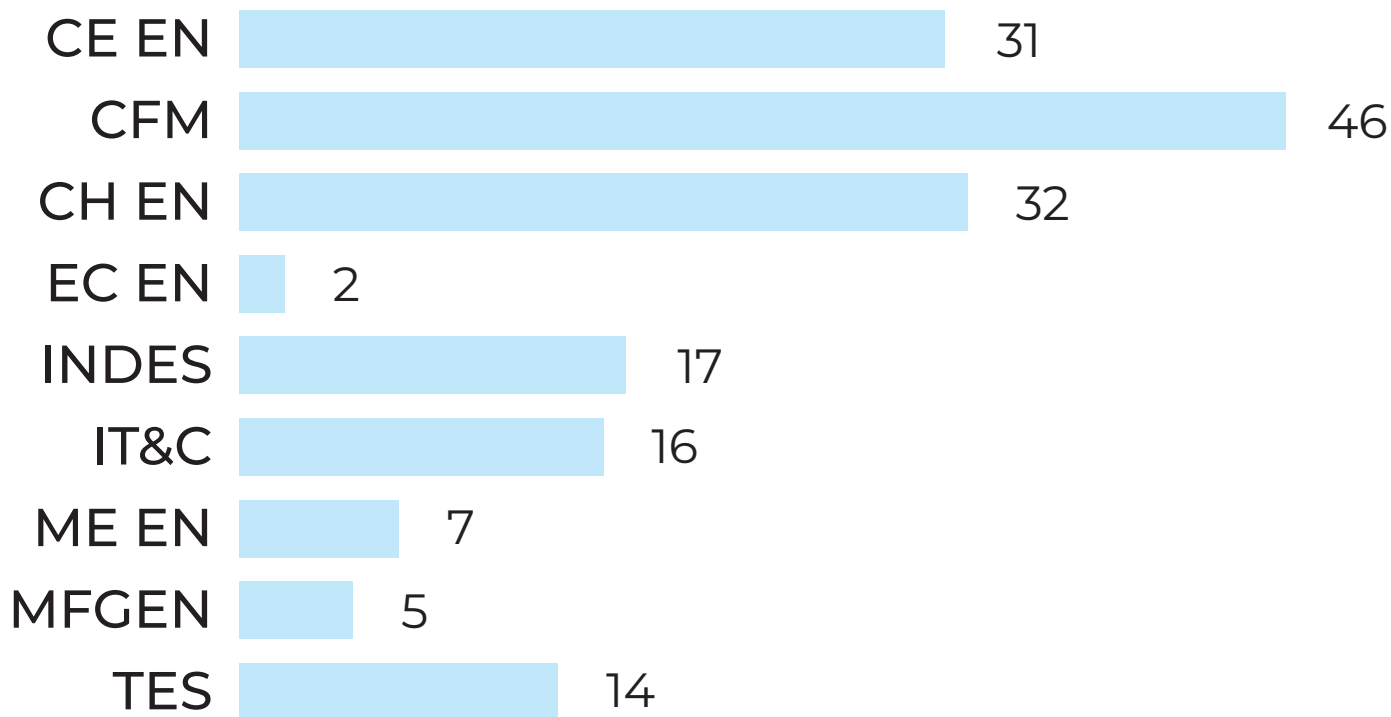
TABLE OF CONTENTS

1	College Internship Statistics
3	Kyle May, Chemical Engineering
6	Isaac Faldmo, Construction & Facilities Management
8	Chase Tyler Abel, Cybersecurity
9	Garett Craig Cook, Cybersecurity
11	Damon Williams, Manufacture Engineering
12	Brock Johnson, Manufacturing Engineering Technology
14	Parker Bronson, Mechanical Engineering

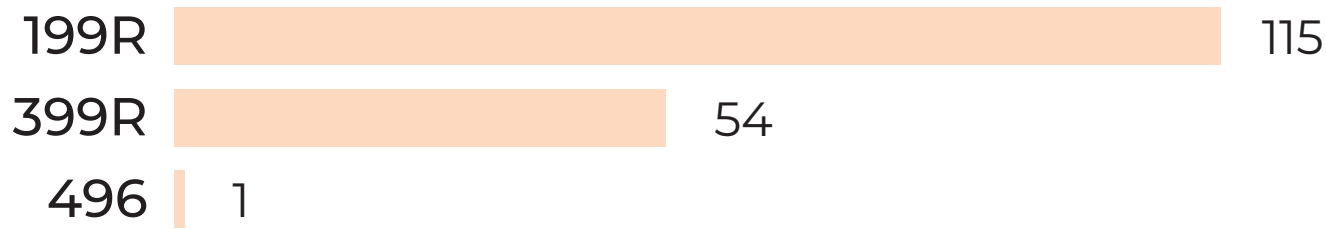
**These stories were submitted by the students via survey. If your department is not represented, then we did not receive a suitable response from your interns. The college internship statistics only reflects internship courses where the students completed an internship application before enrolling.*

COLLEGE INTERNSHIP STATISTICS

DEPARTMENTS



COURSES



170

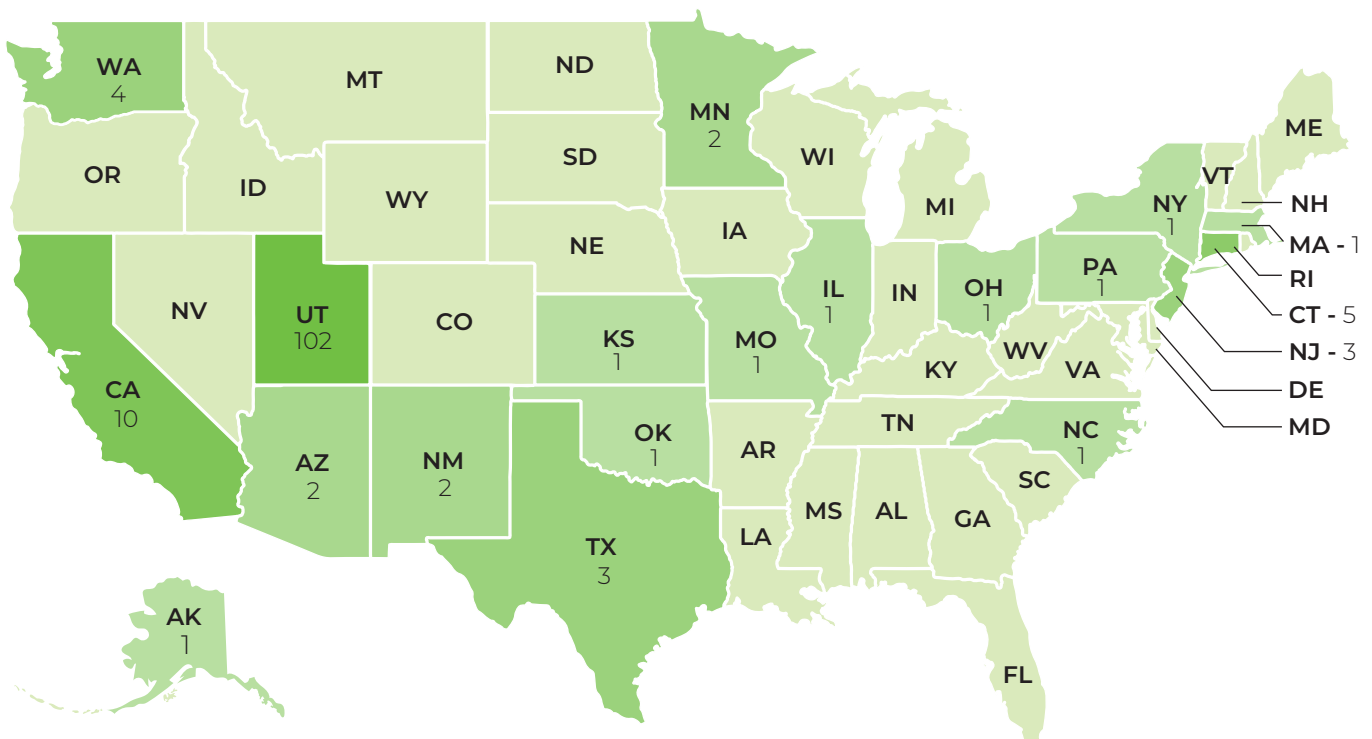
INTERNS

2019: WINTER • SPRING/SUMMER • FALL

TOP 5 PROVIDERS

1. BYU On-Campus (18)
2. Coreform LLC (7)
3. Cushman & Wakefield (5)
4. Sodexo (5)
5. Wasatch Energy Management (5)

IN 19 TOTAL STATES



KYLE MAY

LIBERTY PIONEER ENERGY SOURCE

During my time at Liberty Pioneer Energy Source, I have learned a plethora of valuable skills that I strongly believe will give me the advantage in my pursuits toward a career in the oil and gas industry upon graduation. Liberty Pioneer is a smaller company located in Orem, Utah licensed to drill in the states of Utah, Colorado, and Texas. They specialize in upstream oil and own thousands of acres

of mineral rights across these three states. During my experience with the company I have had the opportunity to inspect these currently producing wells and take part in on-site chemical treatment meetings. In all of my endeavors with the company, I have truly felt that the CEO and Vice President have done all they can to benefit me in my career path; they truly want me to succeed.

One of my main tasks within the company are to locate and acquire mineral rights in Duchesne and Uintah Counties. The process involves looking at hundreds of leases a day, deciphering whether or not the lease has expired/released, and contacting the owner of those mineral rights if that particular parcel of land is not held by production. To enhance this somewhat tedious procedure of checking for land held by production, I took on the task of creating a comprehensive guide to well spacing orders for held-by-production wells increasing time efficiency by 60% compared to previous processes. This finding process facilitates company expansion into other mineral rich territories. Thus far, the company has signed leases for 3% of a 640-acre section I have located in Duchesne County resulting in steady company profits of



Kyle May had the opportunity to work at Liberty Pioneer Energy Source and gain footing in his desired career.

\$30,000 per year. Within the upcoming weeks, they plan to sign more leases on land I have found.


Another one of my main tasks as an oil and gas intern is to project conservative economic decline curves via PHDWin, an oil and gas production analysis software. Doing this allows our investors to get an idea of how consistent our oil and gas production has been the past 10

to 20 years. This is also essential in the decisionmaking process as to where to drill next. By analyzing public data of currently producing wells held by other companies, we are able to get an idea of where the mineral rich lands lie with help from our geologist team.

They take the oil and gas production analysis to the next level through a series of ground tests that tell us where to frack.



Kyle (left) and friends at a chemical treatment trip in Castlegate, UT.



The most useful thing I learned during my time at Liberty Pioneer was how to interact on a professional level. Since it is a smaller company, I had the opportunity to have daily face time with the CEO and Vice President. I learned valuable communication skills through them that I have since taken with me to my second internship at Northrop Grumman Propulsion Systems in the aerospace engineering industry. Though these fields are far from similar in a plethora of ways, The business and communication skills I learned at Liberty Pioneer translate in my meetings, assignments, and even my schoolwork.

One of the main ways in which this internship has helped me with my future career goals is its influence on my desire to work in the oil and gas industry upon graduation. I am fascinated by the extraction process as well as the refinement process. One experience in particular that was a major factor in persuading my decision was on a business trip to Price, Utah. While visiting a wells site, I was given the opportunity to track production of a coal bed methane field and analyze chemical treatment. This was in order to improve production and

mitigate well decay and damage caused by salts and other impurities in the pipes. It was hands on experiences like this that helped me relate principles that I had learned in my reaction engineering classes at Brigham Young University to my work at Liberty Pioneer. I was able to apply chemical engineering process principles such as kinetics and reaction rates in a plug flow reactor to the work force. My fascination has only grown as I have developed greater understanding of the extraction and refinement procedures of these coal bed methane fields.

During my internship, I located and acquired mineral rights for 9% of a 640-acre section in Duchesne County, UT resulting in steady company profits of \$90,000/yr. I also created a comprehensive guide to well spacing orders for held-by-production wells increasing time efficiency by 60% compared to previous processes. I was able to project conservative economic decline curves via PHDWin Oil and Gas software for 100+ producing wells. Finally, I tracked production of a coal bed methane field in Uintah Basin and analyzed chemical treatment to improve production.

[READ MORE ABOUT KYLE'S STORY HERE](#)

ISAAC FALDMO

CUSHMAN & WAKEFIELD

My internship experience was with Cushman & Wakefield, one of the largest commercial real estate companies in the world. They provide both brokerage and global occupier services such as facilities and project management. I had the opportunity to be with their account at Google in the Bay Area. It is one of Cushman & Wakefield's biggest accounts and covers about 15 million square feet.

What impressed me the most from my internship was the amount of trust I was given. I was able to work on projects in

both Facilities Management and Strategy & Analytics. Networking is one of the skills that I was able to develop the most during this internship. We not only were taught the best ways to network, but we were surrounded by important and smart leaders in the company that we could learn from and build relationships with. My courses helped me understand the topics that were being talked about right away when I arrived for the internship.

"This experience gave me an opportunity to see every different part of the industry and learn and develop new skills that I wouldn't be able to otherwise."



Isaac Faldmo

I learned a lot about the three elements of experiential learning including

1) Intention: creating an environment where critical-thinking and high-paced learning is involved

2) Integration: Internship sponsors that allowed and trusted me to take on big projects

3) Reflection: with 12 weekly reviews with my sponsor.

I recommend this internship to other students. This experience gave me an opportunity to see every different part of the industry and learn and develop new skills that I wouldn't be able to otherwise. It feels like a start-up even though it's an established, big corporation.

“We not only were taught the best ways to network, but we were surrounded by important and smart leaders in the company that we could learn from and build relationships with.”



Isaac Faldmo (top right) and other interns at Cushman & Wakefield

READ MORE ABOUT ISAAC'S STORY HERE

CHASE TYLER ABEL

SELECT BANKCARD

My internship has allowed me to apply the concepts that I have learned in class to the real world. There are certain concepts that are taught in class that can only be appreciated and applied in a “professional” environment. My internship taught me the importance of working on a team, meeting strict deadlines, and helping a company make money.

As an intern I was trusted with important opportunities that made me feel like I was part of the big picture. I became interested in not only my own success, but in the success of the company as well.

The most important lesson that I was taught from my internship is that you never stop learning. People that have worked in my field for decades are



Chase Tyler Abel

“As an intern I was trusted with important opportunities that made me feel like I was part of the big picture. I became interested in not only my own success, but in the success of the company as well.”

still learning how to better fulfill their responsibilities. It is inspiring to see that I will continue to develop my potential the longer that I stick with my position. They gave me a basic understanding of what was to be expected in the workforce. I was taught breadth, but the internship taught me depth. I learned how to communicate, write, work in a team, and meet deadlines.

[READ MORE ABOUT CHASE'S STORY HERE](#)

GARETT CRAIG COOK

BYU OFFICE OF INFORMATION TECHNOLOGY

The Brigham Young University Office of Information Technology (BYU OIT) is responsible for maintaining all the technological demands of the university. The team that I had the opportunity to intern with was the Site Reliability

“Everyone worked really well together and created an environment that was fun to work in.”

Engineers (SRE), a team of system administrators that maintain thousands of Linux servers. The main responsibility of this team is to ensure that all the servers they maintain stay up and running and have the computing resources necessary to run the applications and programs installed.

At the beginning of my internship I made the goal to learn as much about system administration and the Linux environment as I could. The team helped me accomplish this goal by training me in common system administration tasks and letting me shadow them as they worked on their projects.

While I still don't know everything about Linux operating systems I do feel that I learned enough to be semi-proficient as a Linux system administrator.

One of my projects was to set up a monitoring system for servers that the team was trying to upgrade from an updated OS version to a more modern one. I used E.L.K. (elasticsearch logstash and Kibana) to create a visualization of the traffic going to the servers and used the visualization and logs to identify the users of the server. The team was able to use my servers to talk to the users still frequently using the servers to create a plan to retire and upgrade the servers.

I really enjoyed the SRE team dynamic. Everyone worked really well together and created an environment that was fun to work in. I was also impressed at the extensive knowledge each team member had. They all knew the ins and outs of all the systems and how each system works for the organization as a whole. Because of that knowledge, they were able to offer solutions to their customers that not only achieved their own needs, but also the needs of the entire organization.

The only thing I didn't like about the internship was my own lack of knowledge.

The systems that are in place at BYU are hard to grasp if you don't have a sound understanding of networking. I found that my own lack of understanding kept me from being able to grasp some of the concepts I needed to understand in order to accomplish a few of the tasks I was assigned.

My official title at the company was Junior System Administrator and the class that prepared me the most for this internship was IT 210A&B. That was the class where I first learned how to use the command line interface (CLI) and worked in the Linux environment which

were the two core skills I used every day at my internship. For any future students interning at this position I would highly recommend being well acquainted with the Linux environment and the CLI. A solid understanding of networking would be a great help in understanding the systems that BYU OIT has in place.

“Because of that knowledge, they were able to offer solutions to their customers that not only achieved their own needs, but also the needs of the entire organization.”

BYU
OFFICE OF
INFORMATION
TECHNOLOGY

The internship was an incredible experience and the skills I learned with the Site Reliability Team are going to help me be a great employee in the future. I will always be grateful for the experience I gained at this internship and would highly recommend that any BYU students pursuing degrees in computer related fields should try to get an internship or job with BYU OIT.

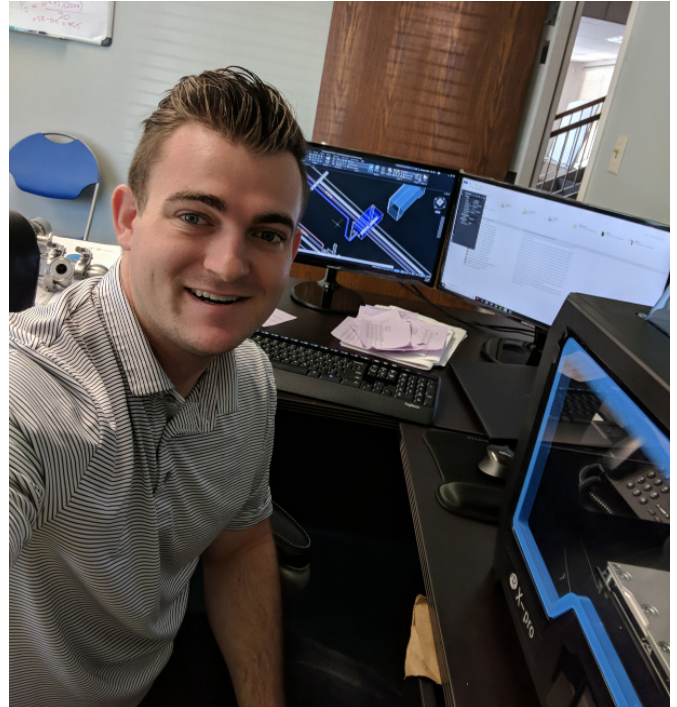
[READ MORE ABOUT GARETT'S STORY HERE](#)

DAMON WILLIAMS

INNOVATIVE FLEXPAK

I had a great internship experience because I joined the company while they were growing so I have had the opportunity to help set up a lot of new production lines as well as design using CAD software remodels that we did to make our production lines more efficient and reduce variation in our product.

I think the most useful thing I learned was how to accept new challenges with an open mind and a willingness to learn. I have been given a lot of different tasks to accomplish during my internship and most I had never done before so I had to research how to do it or follow what my supervisor showed me and learn on the go. I learned how to create professional reports and emails that I could present



Damon Williams

to my boss or use to document the work I had done and what still needed to be done to complete the task or improve the process. They helped me know what resources I could use to learn new things quickly. They also taught me a lot of useful skills that I was able to expand upon like using CAD software to design 3D models.

I feel like I have gotten to participate in a lot of projects that most interns wouldn't get to and I have gained an enormous amount of experience in the field that has better prepared me for future jobs I will have.



Damon Williams helped design and refine production equipment like what is shown here.

READ MORE ABOUT DAMON'S STORY HERE

BROCK JOHNSON

DAIKIN NORTH AMERICA



Daikin North America in Waller, Texas

I worked in production engineering for a company that manufactures HVAC units from start to finish. My team was responsible for the copper tubing area which holds the coolant in the final product. I was tasked to update the tooling information so that the routings would be much more accurate and efficient.

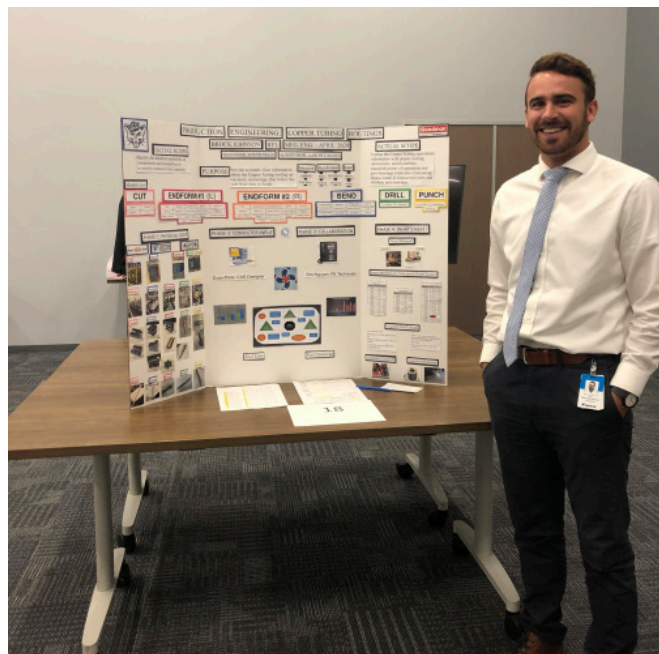
I gathered the information necessary and extrapolated data to analyze what we could eliminate, what was obsolete and which tools should be standardized for the parts being made. As a result, I figured out we could reduce 50% of the tooling on hand and establish standards to follow each process of copper tubing.

The most useful thing I learned was how to communicate clearly with everyone. There were people who couldn't speak my language and that was difficult to maneuver. But in emails, conversations, etc, communication is absolutely vital to working effectively.

My courses prepared me for the internship by providing theoretical understandings of how a warehouse functions, how the necessary tooling works within tolerances, and a hands on introduction to what working in the industry is like.

"It was challenging yet exciting to apply my schooling to make a difference in a company."

I learned how to extrapolate and manipulate data to help show the necessary changes suggested, how to communicate with different levels of leadership, how to build and foster a relationship of trust, how to make a mistake and learn from it and how to work in the real world.



Brock Johnson with his presentation.

I would recommend this internship to other students because it was a very hands on learning experience to working in the real world and it was challenging yet exciting to apply my schooling to make a difference in a company.

It was a very diverse situation working with people from all around the world and that was very enlightening and eye opening. Expose yourself to more of those kinds of opportunities so that you can gain more understanding and perspective from all kinds of people.

READ MORE ABOUT BROCK'S STORY HERE

PARKER BRONSON

OBEO INC.

The internship overall was so beneficial to my career. I was able to learn so much about the Salesforce Platform, Continuous Integration and Delivery, and Agile methodology in action. I souped up my frontend skills while solidifying my back-end skills by doing the following tasks: 1. I built regression tests mimicking end to end business processes to ensure reliability of newly deployed code. 2. I built a data import tool to populate Salesforce with data when developers spin up new sandboxes for testing. 3. I built various front-end add-ons to integrate with Youtube, Filestack, and Salesforce One.

Getting a taste of full stack development on such an incredible platform like Salesforce made the

internship completely worth it. I felt valued and felt like a real asset.

An emphasis on real-world value. I used to get stuck on things that I couldn't figure out. I would spend hours delving deeper and deeper. This can be an important skill; however, it can also waste a lot of time. My perspective changed from trying to get something trivial done at all costs to prioritizing my tasks to provide most ROI.

I also learned to take a step back and evaluate things from a larger perspective. It's easy to go with the first idea that comes to your head. You might spend hours on that solution only to realize it wasn't the best way. There's a satirical saying that I got to see in action, "Weeks of programming can save you hours of planning." Team projects in my CS340 class really helped a lot. Large scale projects helped me to see real-world problems better, by stepping back and turning a big problem into many little ones. I learned to work in a team... to utilize strengths of others. I learned to ask questions and learn from others. I learned to express myself honestly to resolve conflicts.



Parker Bronson (left) and fellow coworkers at Obeo, Inc.

[READ MORE ABOUT PARKER'S STORY HERE](#)