# The TRIO Talent Search Times

Summer Academy Newsletter 2023



# ND Myung Lab

By: David Arthur

Myung Lab is an amazing lab that does lots of research. I have learned many things. One of these things is that if you draw a circle of multiple colors on a coffee filter and fold it in half three times, then dip the tip in a cup with a minimal amount of water, and wait, after a bit the colors will spread and cover the whole coffee filter and make it look very nice. It also shows what colors are made up of and how they break down when water is applied. We also made another very interesting electric circuit. Essentially what we did was had an object with code put into it, that when electricity was flowing in a circuit, it would make a loud beeping sound. The sound was much like a smoke alarm and was quite annoying if I do say so myself.

We made another circuit as well from a human chain which accomplished the same thing. Even a circuit that used a banana for energy using its potassium worked. As well as this, we also made a motion detector. Basically it would detect if someone's hand was moving in a certain direction. If it was moving right, one would turn on, if it was moving left, a different one would turn on, etcetera. Honestly, I definitely would recommend it to visit or see if you get the chance.





# ND Environmental Change Initiative

#### By: Mathew Deranek

We visited Saint Patricks Park to learn about the different ecosystems that are at the park. We learned about bugs, trails, woods, water, and their bald eagles. We then split into 2 different groups and did 2 experiments. For our first experiment we put a ball in water and put one flag on one side and the other one on the other side. We then tracked it, did the math on what the average was and we found it. Then for the second experiment we got bugs and weird water creatures and we put them in water and saw what species they were. I learned a lot about research that is being done at the park and also thought that the park had a few nice things to it, especially the trails for older people and younger people.







# Notre Dame Robotics Department

#### by: Daniel Arevalo Rivera

On July 13th, we went to DeBartolo Hall and Fitzpatrick Hall and saw some different forms of robotics. Some robotics help people to move with their replacement arm after an injury. Other robotics might help people explore different animals. Afterwards, we went to a soft robotics class and made a coffee bean gripper and a stress ball because we had extra time left over. After the soft robotics we learned about the speed of a robotic arm. It was a great experience that I learned a lot from.



# Notre Dame Robotics Department

#### by: Brycen Parker

We went to the ND robotics and we learned about soft robots and how they help people who need them or use them. One of the many things we learned about soft robots was that they are made of materials that robots would not usually be made of.

We were shown examples of soft robots and the robots we use today. Some of the examples were prosthetic arms and legs. We made soft robots using a syringe, a balloon and coffee grounds.

#### ND Chemical Engineering Notre Dame Energy



#### We had to do a scavenger hunt but it was easy. They brought in a bottle with rubbing alcohol and a pressured ball. We squashed the ball to make air pressure and you'd open the bottle and it would pop. We also learned about tons of energies also known as kinetic energy, potential energy, and more. I wrote about this because I had a good time doing this activity. They also gave us gel pens at the end of the activity.

Moreover at the beginning of the activity we got a paper with different pictures like the sole of a shoe together with a picture of the letter R. We had to say the energy with the pictures so "sole, R" was solar energy. I thought it was really interesting because we got to have more experience with rubbing alcohol and other new things to learn about. It also was really cool because we got to learn about different biology and pictures. To wrap this up overall I think it was really fun. And I learned more about energy and how you can use it.



# Notre Dame Energy

by: Nadya Farhan

On July 20, we went to the Jordan Hall of Science where we learned about different types of energy. They showed us pictures of objects that contained different types of energy. They would ask us what type of energy we saw in the pictures. Next they gave us objects that made different kinds of energy. For example, there was a plastic bottle with rubbing alcohol in it, you add air pressure to the bottle then, it pops open with smoke!

Lastly, we looked at energy definitions and wrote about them! They also had really cool art pieces! We wrote about the definition and our favorite art pieces that we found interesting. Personally, I liked the black and purple art!

### Notre Dame School of Architecture

by: Nadya Farhan

On July 24, we went to explore the architecture field. They taught us what they do and that we are gonna try to do what they taught us. They told us about the different fields of architecture. For example, they have landscaping, renovating homes and designing buildings! We went outside and they asked us to design something that caught your eye outside. Later they allowed us to get in teams and see who could build the tallest and sturdiest structure out of a limited amount of materials! Overall I think it's a pretty cool field. I definitely recommend it.

# Notre Dame School of Architecture

by: Muri Jackson

We learned a lot about the history of architecture throughout Notre Dame and I thought this was really cool. I really enjoyed the part where they took us outside to look around and sketch whatever we saw. I liked this because it was really calm and relaxing. One of the coolest things were the really old books. They had some aging from over 500 years old. I really enjoyed this because I like architecture and this is one of the careers I would want to pursue in the future.



# Hesburgh Library

by: DiMayah Marsh

On July 14th we visited the Hesburgh library and went to the archives and looked at very old books and magazines that Jackie Robinson and other African Americans made for more money. We also learned about flip books and these taught you how to play sports since they didn't have television in those times, and we also learned about how women played baseball since they thought men wouldn't be able to during the war.

Later in the station we went upstairs and sat in a room and got a packet that we had to solve on this website using the chromebooks. And once that was finished we headed to the lower level where the books were and looked for a book that had orange bookmarks in it and once you found the book you would grab a bookmark and go upstairs and receive a gift from the front desk. And after that you completed 2 of the 3 stations at the Hesburgh library.



### Hesburgh Library Makerspace

by: Mercedes Walubita

The experience at the Library was good because of all the activities we did there. One of my favorite activities we did there was where we worked with Adam to create a 3D printed launcher to be able to launch a small toy football across the floor. The first thing we had to do is to get into groups of four or five, and use Tinkercad and design the launcher. After we did that, Adam was going to print out our designs, so we could build them. After that, we went into the Hesburgh Library and went upstairs and went into a long hallway. There were 2 groups and each of us had to put together our 3D printed designs together using tape, hotglue, and other supplies. There were also two total rounds of doing it. The challenge was to be able to launch the football with the launcher and get across the hallway at only 50 feet, it could not be more or less than that. We had 10 minutes to put together the launcher, test it, and make any changes. Then it was time to launch it, we also had a total of 4 launches to make it go across the 50 feet.

After that, we had 10 more minutes to make any changes or improvements to the launcher, since it was the second round. After that we launched it again and in order to know which team won, we took a measuring tape and measured the amount of space we had in between the finish line and where our football was launched too. The total experience was fun and exciting to do and that's why it was one of the best activities we did there.



### IU School of Medicine

by: Heaven Kullberg

On July 18th, we went to the IU School of Medicine. We were able to do so much! The first thing I did was go to an interview with an aspiring doctor! He asked some questions about a fictional case that was about a man and his medical problems.

After that I went to a hand washing station and went to find out how many germs I had on my hands. Hand sanitizer was the best way to clean them. After that I went to see an ultrasound on a dummy.

It was really cool! There was a side for colors and a side without colors. Then after those stations I went into surgery! There was another dummy, we put on exactly what a surgeon would wear and we learned about how to perform surgery on a knee and what tools to use. I was the anesthesiologist, which means I was the person who put the patient asleep. I had a really great time and hope I can do it again sometime!



### IU School of Medicine

by: Charles Dickerson

On July 18th we went to the IU School of Medicine and we looked in microscopes and looked at "blood". We also did an ultrasound on a mannequin. And learned what happens in surgery and what they use!

Going there was really fun, especially the surgery. We got to go up on stage and pretend to do a surgery on a mannequin. I was at the head of the mannequin and I was in charge of making sure the patient was breathing. The people on the side were in charge of doing the surgery.And lastly the people at the feet handed out the tools. It was a fun experience at the School of Medicine.









#### South Bend Cubs Trip

by: Jamier Jones

On July 19, we went to the South Bend Cubs game. It was a fun day because I was with my friends. We got there after we practiced for our mock trial. We got to the game at 12:00 after we got on the bus and enjoyed the ride. When we got to the game we got our tickets and sat down. We sat down for a couple minutes then we got up and got our food. The people who got up were my group of friends Muri, Leon, Jerome, and me. We decided to walk around. We spun a wheel and did more stuff.

Me and Jerome were walking around and doing stuff while Leon and Muri decided to get food. By the time we stopped walking around it was a done game. The Cubs beat the Whiteheads.

### Notre Dame Culinary Experience

by: Muri Jackson

What I enjoyed a lot was the culinary class we went to. I enjoyed this because I really like cooking and learning how to make new things. I really liked how they let us make our own pizzas and cookies. I also like how they showed us all of the equipment they use almost everyday for the dining hall. This was a really cool experience and I would do it again.

We learned the importance of hard work to reach your career goals. I was able to learn about how to get into culinary as well as other careers in the food industry.









### Notre Dame Jaffe Chemistry Lab

by: Student

We visited the Jaffe Lab on July 26th. We were able to learn about atoms and protons. We did 2 science experiments, one that involved putting a penny in a beaker to react to a solution. It changed colors. The other experiment was related to PH. We used a PH indicator to test out different solutions. We had to write about the color of the solution before and after we added the indicator. I enjoyed the experiments a lot as it was really cool to be in the lab.





### DeBartolo Performing Arts

by: Mercedes Walubita

The experience at the Technology / Cinema building was interesting because of all the things we did there. The first thing we did was go into the Cinema room and watched a movie that explains how technology has advanced and because of that, people are digging deeper into how the technology could cause problems and how some of the technology built is not always correct. It's influenced by some problems that we have in the world that are still here, like racism and other things, and also how people wanted to change that. Then, we got a tour around the building and learned more about what kind of things were there. Overall the experience was great, and I would definitely recommend it to my friends and other peers.





#### ND Law School

by: Layla Washington

On July 20, we went to the Law School and met with Max Gaston. We went to do a case and become real lawyers. Max led us to the case about Garrett and Fred. It was a hard case to argue as the appellee. We didn't win, but it was a fun experience.

Putting the case together was even harder than speaking the case. Because you had to find every piece of evidence to prove you and your team were right. It was really stressful since we were on a time limit. Working with the students was also fun because they knew what they were doing, at least better than us.

It felt like it was an actual court trial with actual judges, since we were in an actual courtroom. Even though I was a part of the co-counsel, it still makes me excited to be a lawyer in the coming future.







#### ND Law School

by: Felisha Jenkins

On July 20th, we went to the Law School. We got a case and a group. My team was really good, the case was interesting. It wasn't really a hard case, we just needed to point out the good facts. Working on the case was fun. Being in the courtroom was fun as well. Seeing the judges was cool. Meeting a real lawyer was cool and interesting

Soon it was time to go to court to actually perform our case. Even though I wasn't the one speaking, it was still a fun experience. Just being there in the courtroom was really good. My team ended up winning our case and I'm proud of the speakers of my team. And I think when I'm older I still want to be a lawyer.

The reason why I chose to write about this topic is because I want to be a lawyer when I grow up and I wanted to share my experience doing this. I learned a lot of things while doing this activity. It was really fun.



ND Law School

Thursday, July 20, was the day of the mock-trial where there were six teams going against each other in the courtroom. Each team had one opposing team that they had to go against, The case included the state's side and Garrett Walker's side. So the judges gave us a summary of what will happen and what we have to do. The judges also said after everyone is done they will pronounce the winners of each of the groups. So with that being said we all went and I'd say everyone did a great job, and yes there were a lot of people that were nervous but that was okay because everyone did good overall. Like I said, at the end the judges would pronounce the winners and I must say I was surprised at some of them because mostly all the people who were on Garret's side of the case won except one team that was on the state's side. So that was my experience with ND Law School. I had a great experience with it. I hope I will be able to do something like that again.

### Transformational Leaders Program

by: Amara Rose

On July 14th we went to the Transformational Leaders Program. When we first got there we got into 5 groups. In my group we went to the Basilica and we looked inside. When we came in there we had to whisper because we had to respect the people that were praying. After we looked inside we went outside and made lyrics. After we learned about life income and payments so we can learn how to manage money when we grow up. And for third we went to the Grotto and we had to estimate how many candles were in it...It was close to like 1900! After that we went to another church but it was the first one in Notre Dame. We did trivia for about 15 minutes and went to the last station. At this last station we tried to think how much the marble ball weighs. In conclusion it was a great trip and I wouldn't mind doing it again!



#### Transformational Leaders Program by: Isabela Rios

On July 14th we all gathered at the Golden Dome to group up with incoming freshmen. First they all introduced themselves then we got in our groups, and we made a group name which was really fun. We named our group Touchdown Jesus. After we went on a scavenger hunt and went to this building called Coleman-Morse and learned some history about it and learned history about Notre Dame as well, and when the building was made that we were in. When you first walk in there's this big boulder which weighs 1300 tons, we had to guess how much it weighed first we had to do some math also. After we were done with that we went to the Basilica. Once we stepped foot in there I was amazed it was so beautiful there was color everywhere and I just loved the stained windows. That church I went to was definitely the biggest one I've been to before. I just wanted to stay there. It felt so peaceful but at the same time it was so fun to look around at the mesmerizing things. It felt like I was looking at 1,000 dollars, especially when I looked up I saw all the beautiful paintings with so much detail and there were statues also. I took so many pictures of everything. I just wish I could go to church there every Sunday. I will gladly wake up and go no matter the time. I feel like this was one of my favorite days at the University of Notre Dame, something I will remember in the back of my mind forever.



# Notre Dame Engineering Department

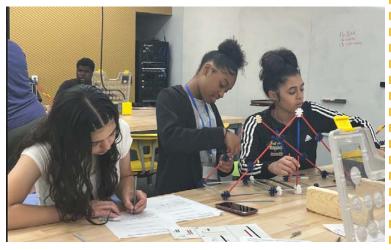
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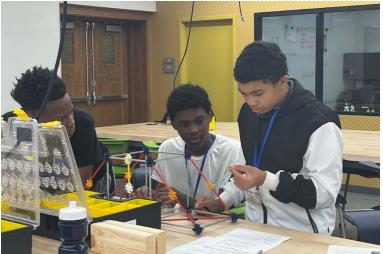
On July 27th, we had the opportunity to have our students learn about engineering. Students were asked to build a bridge to withstand 5 pound sand bags. The experience was great as many students created bridges with their team and brainstormed creative ideas together.

We were excited to test out each bridge to see which one could hold the most weight. The winning bridge held 15 pounds of weight before breaking. It was a wonderful learning experience.









# Museum of Science and Industry, Chicago



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