THE HONOR CODE MAGAZINE

CSULB UNIVERSITY HONORS PROGRAM 2018-2019

DISCOVERY

& INNOVATION

03

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EDITORS' NOTE

Over the past year, students in the LBSU honors program embarked on exciting journeys and conducted innovative research in a variety of fields, from science and mathematics to public relations and education. Through their efforts to make the most of their quests in higher education, they have ultimately paved the way for careers in their chosen fields. These former and current students took opportunities that came their way and made the most of their ambitious endeavors. Some are just starting with their college careers. Others see college in their past. Although some struggled, they persevered through the adversity. Now, they all look to the future to make a difference, to discover their path in life and to help those in need.

Sincerely, Gill and Hannah



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Introduction & Staff

PREPARING FOR AN ASTEROID ATTACK

Senior Robert Kellogg has interned at The Aerospace Corporation for five summers, working on engineering projects with satellites and rockets.

By Mary Usufzy

If a massive asteroid flew towards Earth, peril and certain doom is expected. The public could lose all hope and even fear a mass extinction event, given the magnitude of the catastrophe. Luckily, engineers like aerospace engineering major Robert Kellogg have embarked on fascinating projects to address such cosmic threats to our world's safety.

Kellogg has interned at the Aerospace Corporation for the past five summers. He admitted he initially chose the internship because it was the only one offered in his first year. However, Kellogg has enjoyed the environment at his internship. Since the aerospace industry progresses slowly, projects can span anywhere from a month to thirty years, some even finishing up by an engineer's retirement.

During his summer internships, Kellogg worked in the Systems Engineering Division and participated in all types of projects. He helped piece propulsion and electrical engineering systems with the assistance of a systems engineer. In addition, he worked on concept designs of satellites in order to calculate rough estimates of their power.

Kellogg recalled his favorite project was determining the course of action during an asteroid attack: "[t]he asteroid project ... that was really cool." . The project spanned three summers and focused on two particular situations: predicted and unpredicted asteroid orbits. With a predicted orbit, engineers would already know the asteroid's path and how long it would take to collide with Earth. Kellogg explained that in such a situation, there would

be sufficient time to build a rocket, launch it into space and hit the asteroid to change its orbit, thus, preventing potential disasters. However, in an unpredicted orbit, there would be no prior knowledge of the asteroid's

orbit. Only a ten minute warning can sound before an asteroid collides with the Earth's atmosphere. However, a combat system would already be in place. Even if it can't change the asteroid's path, the damage would be mitigated. Although this specific system hasn't been developed yet, Kellogg speculates that it would be an extraordinary project to work on.

Although the projects were interesting, the eleven week internships each summer proved to be challenging as well. Kellogg said he was expected to learn on the job. In his spare time, he read papers and books related to the engineering projects, researching the subject material on his own. In addition, he aimed to find the perfect balance of understanding the procedures and working on the project. From this busy schedule, he learned many valuable lessons in his internships, including time management and knowing when to ask for help. He mentions,

"Don't be afraid to ask for help. I think that's a really good lesson that everyone should learn ... it doesn't make you stupid to ask for something."

The Aerospace Corporation internships have also prepared him for graduate school and engineering careers. Kellogg received multiple job offers in October and November, months before his graduation in May. However, he declined those job offers and decided to submit graduate school applications to multiple universities, including University of California, University of Southern California and California Instutite of Technology.

Kellogg's advice for

undergraduates interested in pursuing internships is to,"....definitely apply everywhere you can....apply to any internship vou see."

He speculated that, to a certain degree, an acceptance can be very random and based on unforeseen factors, such as a small pool of applicants. Thus, it will help one's chances to apply to multiple programs. Even though it may take extra time and effort, Kellogg believes it's worth the experience. Contrary to popular belief, Kellogg stresses, "[An] internship is a learning experience, it's not a iob."

Kellogg plans to return to The Aerospace Corporation for another internship next summer and said he gained many invaluable skills from the internships, such as time management and persistence. In the end, Kellogg is grateful this experience has prepared him for graduate school and an engineering career.

"'Don't be afraid to ask for help. I think that's a really good lesson that everyone should learn....it doesn't make you stupid to ask for something.'"



NANOELECTRONICS WITH NAOMY

Physics major Naomy Marrufo participated in summer research with the MARC program.

By Mary Usufzy

Research sparks curiosity, provokes compelling questions and generates insightful ideas of the world we live in. As a result, some undergraduate students choose to pursue research opportunities. They know the importance of exploring new ideas to gain a better understanding of their fields.

Physics major Naomy Marrufo is one such person. As a student in Maximizing Access to Research Careers program, she spent last summer researching nanoelectronics in physics professor, Claudia Ojeda-Aristizabal's laboratory.

"The MARC program ends up making a world of difference when you're applying for graduate school," Marrufo said.

Maruffo studied the electronic properties of Ruthenium (III) Chloride Hydrate and used a Teslatron, an electron transport device, to measure the movement of electrons at low temperatures. Moreover, she operated

a Scanning Electron Microscope to conduct electron beam lithography, which is the process of scanning a focused electron beam to create structures in thin films. She also studied the properties of graphene, which is the first two-dimensional crystal discovered in nature. Marrufo used a piece of tape on graphite to peel off graphene flakes. The thin films help to improve the understanding of electronics among scientists.

"Research is an invaluable experience....it dips [your] toes in different areas to see if it's a good fit or not," Maruffo said.

[she] could try every single field."

The MARC program was instrumental to her success in research. It paid monthly

"'Research is an invaluable experience....it dips [your] toes in different areas to see if it's a good fit or not,' Maruffo said."

This long-term research experience provided Marrufo more time to prepare and learn experimental methods. Last year, Marrufo studied astronomy in a Research Experience for Undergraduates at the University of California, Berkeley. However, the 10-week program felt rushed and left no lull in her work. She is thankful for the experimental skills she has gained from the lab machinery, but the most valuable lesson was gaining experience in a different physics field. Marrufo admits she doesn't know which field to pursue for her career, but she "wishes

stipends and even provided funds to present at research conferences. However, she advises those interested in research to "seek out programs that help you, and not just fund you." In addition to providing financial support, Maruffo said the MARC program prepares students for graduate school and gives them the tools for success. She stressed that before attending graduate school, it's essential to participate in research and explore different fields before choosing one to pursue as a career.

Marrufo presented her research at the College of Natural Sciences and Mathematics student research symposium in September 2018 and attended a conference in Indianapolis known as the Annual Biomedical Research Conference for Minority Students. She continues research in Dr. Ojeda-Aristizabal's lab during the semester and finds it a challenge to balance it with her busy schedule. Nevertheless, Marrufo finds the research experience enjoyable and hopes to attend graduate school to continue pursuing what she loves.

If $e \otimes f$ and $e^{\circ} = f^{\circ}$ does it follow that e = fdoes it follow that e = f $Z(M(P)) = Z(Z(P)^{\circ})^{\circ}$

EVERYTHING IS MATH

Honors student shares experience in math research Jennifer Gensler plans to publish discoveries she found in Texas

By Hannah Getahun

Everything is math, but math isn't everything

That's according to third-year mathematics student researcher and President's Scholar, Jennifer Gensler.

"Everybody will encounter math at some point in the day," Gensler explained. "You drive to work and you see your tank. You're estimating how many miles you can get on that amount of gas."

That's math.

"You're pouring water and you're seeing how it's increasing in here and decreasing in there... We're looking at the change of rate in the liter," Gensler said.

That's math.

Research

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Gensler can look down at the table she is sitting at and find math.

"You can look at the geometry of it, you can look at the shape, you can calculate the

> area and the volume, you could do physics with it..." Gensler said as she gestured towards the flat surface in front of her.

> > The list goes on and on. When Gensler speaks about math,

her eyes light up and her voice gets bright. Math is something that she loves and strives to understand.

Gensler recently did a Research Experience for Undergraduates (REU) at the University of Texas

in Tyler. A lot of undergraduates do REUs. However, most students never discover anything with their research. Gensler and her group were an exception.

Gensler's research was published online at the Cornell University Library. Now, she is looking to publish her research in Semigroup Forum, a professional math journal that focuses on research findings.

According to Gensler, she and her group were able to find "that every inverse semigroup is Morita equivalent to an inverse semigroup of zigzag maps "

Yikes.

Gensler has a simple analogy to explain this in layman's terms via her large Hydro Flask.

"If I had [this] water bottle, and I put it on this conveyor belt, and it goes through a magical box, and it turns into a... cup," Gensler explained as she grabbed her water bottle and shifted it from left to right through the invisible magic box in front of her. "So the

"When Gensler speaks about math, her eyes light up and her voice gets bright. Math is something that she loves and strives to understand."

cup still has water in it, the purpose is still the same, it acts very similar to a water bottle, but it's different. It has the same atoms, but it just changed to a cup.

"And if I put it back through," Gensler said as she moved the bottle back, "it will turn back into a water bottle."

Essentially, her research consisted of figuring out the "magic box," or what made one dissimilar set behave like the other one.

At UT, her days consisted of working 9 a.m. to 5 p.m. about this topic with her group.

"[There are] obvious challenges with working in a group ... trying to understand each other and what they were saving relating to the math and trying to understand each others proofs was one challenge," Gensler said.

Through the challenges she faced during her research, she was able to make lasting friendships and have some fun during her stay in Texas.

"I think it's safe to say that we kept one

"Through the challenges she faced during her research, she was able to make lasting friendships and have some fun during her stay in Texas."

another sane this summer-especially during the days that were less than productive research-wise," said Hannah King, a math student from Taylor University on the research team with Gensler. "Some of my favorite memories from the summer involved looking at pictures of Jen's cat, lots of laughter about things that probably weren't that funny, and really great whiteboard drawings."

She presented it at MathFest in Denver as well as at Long Beach State. The former was a memorable moment for Gensler, as she was able to present her accomplishments to a crowd passionate about math.

The latter, showcased in the University Student Union, had Gensler describing abstract mathematical concepts to swaths of non-math majors who had no concept of "zigzag maps and the path category of an inverse semigroup."

"I couldn't explain the theorems in-depth... just talking to people passing by, it was very difficult for me," Gensler said.

Luckily, she had her water bottle analogy on hand.

Gensler is dedicated to teaching and understanding math concepts. As a result, she spends hours trying to understand concepts and solve problems that most would probably give up on.

"Jen doesn't just want to know the answer to a question, she wants to understand why that is the answer - no matter how late at night it

may be," said Gensler's sister, Catherine. "If it were me doing math homework, I would find the answer and leave it at that, but Jen seems to have broken through to this new level of math that she finds fun and engaging in which she enjoys knowing how and why it works."

was the mathematics.

"I love the logic of it," Gensler said. "I don't care about applications, and that sounds kind of crazy because that is what everyone likes to do." Ever since Gensler decided to switch her major to mathematics, she has expanded her knowledge and appreciation for a subject she is passionate about.



Gensler did not start off as a math major. As a child, she thought she was destined to be an architect. So did her sister. She eventually came to LBSU as a mechanical engineering major. In her engineering classes, she learned that the only aspect of engineering she liked

"She carries her mathematical ideas outside of the narrow confines of any particular class and connects them into broader constellations," said Will Murray, an undergraduate adviser for the Department of Mathematics and Statistics. "Seeing those connections is going to make her a strong researcher someday."

Now, Gensler is looking beyond her REU for more research opportunities and internships, and plans to apply to a doctorate program in hopes of teaching algebra to a future generation of mathematicians who love numbers just as much as she does.

And as Gensler goes through life with a math career that she feels will inevitably get more difficult, happiness is what will keep her going.

"Math is really, really hard, and it can be discouraging sometimes when you are working on a problem for four hours and you got nowhere with it... It can make you sad," Gensler said. "I have my friends and my family and my cat and watching Netflix and baking--I love to bake! Math isn't everything to me." But, she says "I love math.'





A TALE OF TWO CULTURES

How a study abroad trip emphasized the importance of cross-cultural experiences

By Kathleen Fabian

Remember the history lessons from elementary school? Whether it was about Christopher Columbus, Ferdinand Magellan or the countless other world explorers, they all had one thing in common-- the need to go out and search for things never explored before. There is a difference between reading about a place and experiencing that society first hand.

That is why Alehxys Pich decided to venture out of her comfort zone and into the unknown -- in her case, Switzerland.

"The cultural intimacy that comes from being somewhere is created by being in that context," Pich said.

Although the trip began as an academic venture, cultural understanding was the driving force for Pich.

"We're becoming a culturally mixed society," she said. "There's less segregation of different nations. There are different people in the world, living all over the world, and I think that our generation needs to

be the one that is okay with crossing those cultural borders."

> Pichfound something exciting about the new culture that surrounded her in Switzerland.

> "There's four different kinds of speak in Switzerland... even when you're on the train, if you pass through the French section [of Switzerland], the train will start talking in French," Pich said.

> She also gained new insight on the idea of independence.

> "I had my own key, my own room[and] had to cook my own meals," Alehxys said. "That's not something I've had to do before."

> Although the experience was challenging, she was grateful for what she learned through it.

> "It made me a more open-minded person--[being] around people of different cultures and making friends with people who are the exact opposite of me," she said.

With fewer than 2 percent of college

"'It made me a more open-minded person--[being] around people of different cultures and making friends with people who are the exact opposite of me."

students studying abroad a year, there is a need for college students to experience new people and cultures. Whether it is the food, the train rides, or the sense of independence, Pich concluded this trip was a necessity.

Though there are many factors that get in the way of students studying abroad, Pich has advice for those worried about the financial aspect: "I realized you can't live your life being worried about money all the time," said Alehxys. "If it's going to be a life-changing experience, it's worth it."



Why networking is the key to professional success.

By Devynne Honsa

For most college students, the "internship experience" is regarded as a right of passage. It is perceived as a part of the natural progression of your education: college plus an internship equals a career.

The only problem is, trying to secure a summer internship can feel like trying to catch a fly with a fish net. In my third year of college,

panels about the "Getting rejected hurts. journalism and public relations industries, Getting ignored hurts followed by an even more." award ceremony scholarship for winners and recognition of outstanding students. I had been fortunate enough to be recognized at the event for receiving the "Bobit Business Media" scholarship. I didn't know what Bobit Business Media was, but I was ecstatic nonetheless to

faced no success.

I felt a fear that many students face when they near the end of their academic careers: I needed experience, but I didn't know how to get it.

Luckily for me, as a public relations major, I had interned on campus during the Spring 2018 semester with the Department of Journalism and Public Relations, working as a social media manager for its LinkedIn channel. A former and favorite professor of mine introduced me to the position, and because she was the supervisor of the internship, I got the job. The position gave me some great experience, but I was still striving for a more professional off-campus experience.

In March 2018, I began my summer internship search, and applied to every social media intern position that I could possibly find. I used LinkedIn, the Career Development Center, and several internship-hunting websites. I filled out one application after another and was

receive my first scholarship.

At the ceremony, I was approached by a well-dressed older woman who congratulated me on winning the Bobit scholarship. She then introduced herself as Mary, the head of human resources at Bobit Business Media, and asked me if I was interested in a summer internship. Of course, I said yes, and she gave me her business card, instructing me to email my resume later that week. That one-minute conversation landed me my

relieved by a single conversation.







interviewed at a few places, but got nothing. Getting rejected hurts. Getting ignored hurts even more. Some places don't even give you a courtesy rejection email, leaving you hanging, wondering what you did wrong. My internship search became discouraging, and I started to feel there was no chance I would secure a summer internship. I carried on through my classes, applying to any internship that would come my way, but still

In April, my college department hosted their annual "JPR Day," a full day of informative

first off-campus professional internship. Months of applications, rejections and frustrations were

I worked at Bobit Business Media as a social media intern,

learning all about the inner workings of strategic digital marketing and social media for well-known publications. I got the privilege of working with beauty groups, including Modern Salon, the leading magazine for professionals in the salon industry. I developed comprehensive strategies for Modern Salon on Twitter and Pinterest while managing each platform on my own. I got hands-on experience creating content and engaging with our followers, and learned so much about digital marketing. It was an incredible experience.

In August, when my summer internship was supposed to come to a close, my supervisor offered me an extended internship position, which I graciously accepted. A few weeks into the extended internship, they told me that even though the internship program was officially ending, they would like to hire me as a social media freelancer. On that day, I officially turned my summer internship into a job.

I share this story because I know how defeating it can be looking for an undergraduate internship. It is easy to get discouraged, and it can be disheartening when your dream position turns you down. I learned from my internship search that it is our connections that help us succeed. The people who get to know how great you are as a person and as a professional are the ones who can open doors for you to opportunities you didn't even realize were out there.

I will leave you with this: If you are an undergraduate student looking for experience, talk to people. Send emails to professionals you admire, and ask for career advice. Go to your favorite professor's office hours and have a chat about job searches. Attend networking mixers and put yourself out there. You never know who could hand you their business card and change your life.

"That one-minute conversation landed me my first off-campus professional internship. Months of applications, rejections and frustrations were relieved by a single conversation."

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A SUMMER IN SPAIN

Peronal essay about how an internship abroad is about more than just the job

By Tara Thomas

There were six of us walking in a line on the meager shoulder of the winding uphill road. We had asked for directions a little ways back, and the locals told us that we had a journey of many steps ahead; we later found out that meant an eternity of *ziq-zagging stairs up the steep side of the* mountain. We ventured onward, accepting the coming hardships in exchange for the payoff of reaching the mountaintop monastery called Montserrat. The peak was located in the outskirts of Barcelona, Spain, the city where my companions and I were pursuing summer-long internships.

Many of us came to Barcelona with an adequate grasp of Spanish, but we soon learned that Catalan is the main language of this region. As we trudged through the exposed summer heat for hours, we realized we may have seriously misinterpreted some road signs. We had taken the long and grueling path up the mountain before we even reached the base of the forewarned staircase. Now, the final obstacle in our journey.

As we paused before the steps I looked up into the tree-lined pathway and could faintly imagine how far up it went. I saw the steep stone incline and imagined twisting my ankle or passing out from the heat while my friends ventured on ahead of me. Honestly,

I was debating turning back down

the mountain, back to the struggles

that I knew, rather than to take on

a challenge I was not sure I could

overcome. I was surprised to hear my

internal worries voiced by some of the

others, but they started up the steps

nevertheless with a "let's get this over

with" attitude. As they climbed out

of view, I forced myself to suppress

my doubts and follow, a revolution

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in my usual over-controlling attitude. And, yes, I went very slowly, but I survived, and the views from the top of the mountain were so worth it.

This experience took place within the first week of my two-month stay in Spain last summer. I am very glad that it happened so early because it set the precedent for how I chose to experience my time from then on. I am a fourth-

year industrial design student with a minor in marketing. Last summer I was set up with a homestay, language classes, and an internship that I used for credit towards my minor. As with any job, one can expect to encounter hardships and learning opportunities, and mine was chock full of them. The mountain hike anecdote was just the beginning of my adventure, as I continued to see myself becoming engrossed in a new culture, overcoming language barriers, and letting go of control for once.

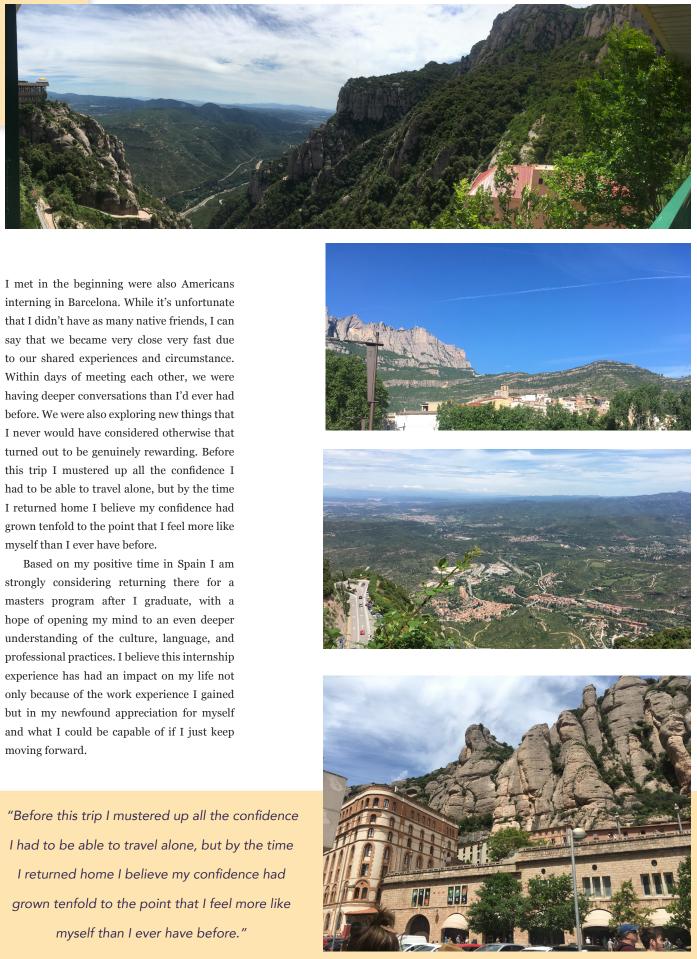
The cultural aspects of Barcelona are like no other. I stayed in an apartment that was two blocks away from one of the most famous landmarks in the city, the Sagrada Familia, an always-under-construction church of unparalleled architectural interest. Every morning I would walk by this building to get to the metro and see the ever-revolving groups of tourists, as well as the same locals taking their kids to school or sitting at a cafe having their morning coffee. Being in a country for longer than a vacation, you really get to experience what life could be like there past the exciting tourist attractions. I loved the daily comings and goings of the city. The food. The beach. The fashion. Even my job.



"At my internship, I observed the laid back culture...It was in such a contrast to workaholic expectations of the U.S. but I enjoyed the lowstress environment."

> The work culture in Spain is another unique experience in itself, especially as a foreigner. At my internship, I observed the laid back culture, including hour-long lunch potlucks on the balcony with my coworkers. It was in such a contrast to workaholic expectations of the U.S. but I enjoyed the low-stress environment. I was also happy to be placed with such kind and friendly people. Communicating with them, however, was a bit of a challenge. My coworkers did not know English; in fact, they primarily spoke Catalan to each other as opposed to Spanish. As a result, it was hard to cheat by speaking English or to casually listen to conversations in the background. Luckily, they understood the limitations of my language and made efforts to ask me questions or tell me stories in their free time. Getting myself to respond in Spanish took a lot of vulnerability though. I had to let go of my comfort zone and allow myself to make mistakes. Many of my best stories from this trip come from times when I did go out of my comfort zone and let myself feel vulnerable.

> Most of my life experiences from this trip came while exploring the city with my friends or by myself, and it was one of the most rewarding parts of this trip. Many of the friends



Internship Experiences

FROM LONG BEACH TO BOSTON: HONORS ACADEMIC ADVISING IS HELPING STUDENTS SOAR

The NCHC is an annual four-day conference that celebrates the achievements of honor programs worldwide and offers a space to share, learn, and grow from each other. Students, faculty, and administrators come to present their research, personal achievements, and provide insight on how to improve the honors program at their respective campuses. This year's (2018) NCHC was held in Boston, MA from Nov 8-11, with the theme Learning to Transgress in Education.



By Kendall Woirhaye

Navigating the college experience can be challenging, to say the least. From declaring a major to mapping out career plans, the process requires proper guidance and access to information. That's where Honors Academic Advising comes in. Matthew Choi, a fifth year computer science major, has experienced the efficacy of the services provided by the Honors led Chavarin and Choi to be selected to Academic Advising staff.

"Honors Academic Advising fosters a facilitating environment where students can freely express their beliefs, learn from their mistakes, and develop."

Honors Academic Advising helped Choi discover his own strengths. Having started Long Beach State as a pre-nursing major, candid conversations with Honors Academic Advisors led him to realize his passion for computer science. After helping him changing his major, Honors Academic Advisors continued to be an unwavering source of support.

"Honors Academic Advising helped set the trajectory for my academic and professional career."

Choi acknowledged how "a lot of the advising is off hours, not just in appointments." He shared that "it can be as simple as telling them you are interested in something or are challenged by something and they will provide the necessary resources". The impassioned, dedicated Honors Academic Advisors truly go the extra mile for Honors students.

When Choi heard that the Honors Academic Advising staff was conducting research on their advising, major-related, and career planning services, he was eager to get involved. Along with Dalia Chavarin, a current Honors student, Choi conducted interviews with five Honors students to obtain data regarding their experiences with Honors Academic Advising. The responses garnered accompany Honors Academic Advising staff to the National Collegiate Honors Council (NCHC) Conference in Boston, Massachusetts in November 2018.

"The Honors Academic Advising model can help guide the future practice of advising, both at LBSU and at other academic institutions."

From November 8 to November 10, 2018. Chavarin and Choi presented their research on LBSU's Honors Academic Advising, alongside former Honors Academic Advisor Lizette Alvarez. In addition to presenting their research during a session, they engaged in a question and answer session. Chavarin and Choi illuminated the approachable, collaborative and encouraging nature of the Honors Academic Advising program. They were candid in their personal recounts and presented their data in an impassioned manner. Choi noted how other Honors programs expressed admiration of the LBSU Honors Academic Advising model.

"I urge Honors students to both appreciate and participate in Honors Academic Advising, so they too can be navigated through the transformative experience of being an undergraduate."





Carter Elwood

By Devynne Honsa

For many, a novel like Toni Morrison's "Sula" is a difficult read at the surface. For

senior Honors student and President's Scholar, Carter Elwood what was on the surface wasn't deep enough. They dove so deep into "Sula," it became the focus of an intense, in-depth research project that led them

to present their findings at the NCHC Cconference.

After reading "Sula" for the first time in community college at age 16, Elwood felt a deep fascination toward the novel. They

found critics got stuck on the meaning and interpretation within the pages and the more

in the literature field, but Elwood recalled the lack of security in finding new theories."

they searched for these answers, the more frustrating it was to realize sometimes there are none.

The path to the NCHC Conference was rigorous. For Carter, it was difficult to write about Sula.

"Every time I write about Sula, it's a very





emotional process, so it's easy to fall into this spiral of sadness," Elwood said.

"The research was groundbreaking

However, Elwood still found joy in the process.

"It's 'fun' because it is very depressing to read, but it's cool to do literary detective work," they said.

The paper was drafted in just a week, but the fine-tuning of the paper took many months, as Elwood prepared to present their research in

front of hundreds of scholars in Boston.

The research was groundbreaking in the literature field, but Elwood recalled the lack of security in finding new theories.

"It was challenging in that challenging the narrative perspective was something I hadn't seen before," they said. "It felt less safel; it was talking about something that was completely new."

Elwood's s research focused on exploring the novel through two lenses: intertextualism and deconstruction. Their research paper, "A Fairytale of Chaos - Deconstructing Toni Morrison's 'Sula,'" won the John B. Williams Award in English Literature, and is set to be published in Parlour: Issue 4. They will also present theis paper at the Comparative World Literature Conference on campus May 2019.

NC HC Roundup

"Landers, an African-American female majoring in chemistry, sees the need for equal representation in her own college and hopes to reach this goal through partnership with programs on and off campus."



Kayla Landers

By Michael Lam

"Awesome" is a word both used and embodied by Kayla Landers. Landers is an individual capable of doing it all: President's Scholar, chemistry major, supplemental instructor, mentor, researcher, University Honors Program class representative and now, a second time veteran of the National College Honors Conference - awesome.

Landers presented her research, "Transformative Experiences in Honors Programs," after working tirelessly with her partner Jesse Brouillette and two honors faculty members. Landers explained transformative experiences as "anything that can challenge your morals or beliefs or core values" and hoped through these experiences, students would become engaged at school.

Alongside her team, Landers explored the literature around transformative experiences, surveyed around 300 current honor students about their experiences in the honors program and "identif[ied] if we have transformative experiences any

happening and, if so, who are they happening to and where are they happening."

Not only did Landers get a chance to present her research; she also got to discuss representation in science. Landers attended the Male Majority Initiative, an event to promote males in predominantly female honors programs, and Diversity in Honors, an event that discussed strategies used to increase diversity in honors. One of the reasons Landers gravitated towards them was their general call for reflective representation. Landers, an African-American female majoring in chemistry, sees the need for equal representation in her own college and hopes to reach this goal through partnership with programs on and off campus. One of her hopes is to connect with elementary, middle and high schools and create a foundation for students, especially in underrepresented communities, to pursue science careers.

Landers said her greatest takeaways from

the conference and everything leading up to it were understanding transformative experiences and learning about the process of conducting research. She said both will aid her replicating transformative honors experiences, as well as increasing diversity in the honors program.

Though the conference is over now, Landers continues to find herself busy in the pursuit of her goals for herself and her community. As of now, Landers' goal is to pursue graduate school and possibly become a professor. Though she is unsure of her future plans, she hopes to once again be a part of the NCHC, as well as apply the lessons she has learned to her community. Whatever the future holds in store for Landers, her path will be nothing short of awesome.



THE NEED TO TEACH

Teach for America alum Ryan Adams works to empower the next generation of adults.

By Hannah Getahun

Adult life sprung quickly on Ryan Adams.

Two years after graduating in May 2016, the 25-year-old German studies major applied to Teach for America to fulfill a lifelong dream of educating kids.

When picking where he wanted to teach, he chose a place completely unlike the Long Beach neighborhood he grew up in: Rocky Mount, North Carolina.

"It's a lot of low income communities, [and] people don't stay here," Adams said. "I ended up ranking this as my top choice."

He secured his top choice, and by June 2016, Adams was out the door.

Now, Adams teaches high school English at Rocky Mount High School, where he improves the writing and reading skills of a future generation of avid learners.

"I really wanted to have an impact...and inspire and empower kids," Adams said. "When I signed up, I decided on high school because that was the age range that I could probably work the best with and help them out the most."

Adams admits it took him a while to get into the groove of things. Moving to North Carolina was a bit of a culture shock. It was not as liberal as California, not as open and not as accepting of LGBTQ individuals like himself.

On top of that, being a new teacher and having to build a syllabus from the ground up was a challenge.

However, he learned to love his school and his community.

"It's hard sometimes because I live in a very rural area," Adams said. "The nearest big city is 45 minutes away.

There's not a lot to do in this town, but the community support makes up for it."

really begins.

In between the hours of helping students, Adams runs clubs, LGBTQ support groups and



When Adams was a student, his life revolved around school. Now, school, and his pupils, revolve around him. He starts his days at 6 a.m., working until his students stroll in for their daily "connections period," breaking the early morning silence. Then his busy day

"'I really wanted to have an impact...and inspire and empower kids,'"

typical teacher meetings.

His day is usually done at 5 p.m.

Though his days are busy, Adams still finds time to watch his students grow.

He recalls one incident where one of his students spent the entire semester trying to make Adams laugh, using insulting humor to tease his teacher. It didn't work, so the student decided to change up his strategy and eventually made Adams chuckle.

"Watching him mature and grow up as he

realizes this stuff isn't funny anymore, or they don't find this thing funny... it's very rewarding," Adams said.

Although Adams is currently teaching English, he wants to get back into his true passion: teaching languages. He still teaches his students Spanish and French when he can. Currently, he is applying for masters programs in order to receive his teaching credential. Teaching is something he sees himself doing long-term and something that brings joy to his life.

"The only reason you should become a teacher is if you have a connection with the students ... and the most joy I have gotten with this work is working with the students, seeing them grow and empowering them," Adams said. "So if someone is considering being a teacher, the number one thing I \triangleright would say is: What students umni are inspiring you [and] how are you inspired by young S potlight people and by their ideas and their motivation?"

SHEDDING THE STIGMA: WHY INCREASING FUNDING OF AND ACCESS TO MENTAL HEALTH SERVICES IS CRUCIAL FOR STUDENTS

Senior Malia Blake completed a comparative analysis of two cities to evaluate their mental health services.

BY KENDALL WOIRHAYE

Being a student is a multi-faceted and demanding experience. Balancing school work with jobs, internships and extracurriculars can lead to overexertion. Malia Blake, a fourth-year political science major, decided to merge her education with compassion to advocate for comprehensive preventative and early intervention mental health services for students.

time as a college advisor at a high school in Compton. Being a college advisor opened her eves to the often overlooked mental health needs of high school students.

"I spend a lot of my time as a college advisor talking to the students simply because they need someone to talk to," Blake said.

Blake's work as a college advisor influenced her decision to focus her thesis on a comparative analysis of Los Angeles and Alameda, California to evaluate their implementation of mental health services for students.

While Long Beach State offers mental health services such as Counseling and

Psychological Services, Blake discovered many primary and secondary schools lack the resources and/or feel underqualified to provide mental health services. Failing to address mentalhealth concerns in students at the primary and secondary school level can lead to maladaptive coping at the postsecondary schooling level and beyond.

"School districts throughout California A native of Long Beach, Blake spends her can play a decisive role in tackling the mental health crisis by implementing comprehensive preventative and early intervention mental health services to support overall well-being in students," Blake said.

> Utilizing her background as a moot court participant, Blake compiled and analyzed case law related to implementing comprehensive mental health services. Blake eventually centralized her thesis on the mismatch in the funding of and population reached by mental health services.

> Blake discovered despite the fact the city of Los Angeles has a\$162 million mental health services budget, mental health services reach 1.65 percent of the

students. On the other hand, the city of Alameda, with a mental health services budget of \$26 million, provided mental health services for 8.16 percent of the student population. Blake also found that 40 percent of students have mental health concerns and 75 percent of school principals agreed social, emotional and mental health are moderate to severe problems.

"We need to encourage more school district involvement, transitioning to more full time staff for school psychologists, increasing employee motivation within schools and establishing consistent meeting times for the most at-risk students." Blake said.

Blake acknowledged there are innumerable pressures students face in education.

However, Blake urges students to be open towards seeking support from others and to be candid about their experiences, as connecting with others can alleviate feelings of isolation and being overwhelmed. Blake is equally determined and hopeful funding of and access to mental health services is increased.

"School districts throughout California can play a decisive role in tackling the mental health crisis by implementing comprehensive preventative and early intervention mental health services to support overall well-being in students."

HONORS PROGRAM GRADUATES

*President's Scholar **Brotman Scholar

Harold Agnote

Dr. Mohammad Mozumdar Computer Science Identifying Vehicles in Highway Rest Area Using Machine Learning Algorithms

Angelica Anthonev

Dr. Ryan Fischer Criminal Justice Innocent Until Proven Guilty: A False Presumption

Nissa Araque

Dr. Melissa Dyo Nursing Impact of an Online Module and Mentorship Program on New Graduate Moral Resilience

Vania Arriola Dr. Clariza Ruiz De Castilla Communication Studies The Comedic Shift in Voltron: Legendary Defender

Russell Barie Dr. Daniel Whisler Aerospace Engineering

Sumer Bermani

Dr. Kevin Sinchak Molecular Cell Biology and Physiology, Minor in Chemistry Interdependence Signaling Between D1, Src, PGR in Regulating Sexual Receptivity in Female Rats

Malia Blake

Alfredo Carlos Political Science Mental Health Services Impact in Los Angeles County vs Alameda County

Javier Chavez

Dr. Amy Wax Psychology The Impact of Diversity on Team Performance

Adriana Chavez Ontiveros Dr. Robert Valentini Mathematics, Minor in Linguistics A Number Theoretic Exploration of Strong and **Optimal Primes**

Mashal Chhotani

Dr. Brvan Rourke Molecular Cellular Biology and Physiology Characterization of Myosin Isoforms in Skeletal Muscles of Mice Bred for High Wheel Running Behavior

Jessica Cho Allison Boyce Angela Choy

Dr. Eric Sorin Chemical Engineering Molecular Modeling of Choline-Containing Inhibitors For Butyrylcholinesterase

Victoria Cimo Dr. Will Wu Kinesiology, Exercise Science, Minor in DanceEffects of Brain Stimulation and Focus of Attention on the Kinematics of a Standing Long Jump

Cynthia Cisneros Suzanne Greenberg English Education, Creative Writing into the High School Curriculum

Michael Drake* Dr. Daniel Electrical Engineering

Keelin Dunn Dr. Varisa Patraporn Sociology

Robert E. Hvla Jr. Dr. Chris Lowe Marine Bioloau Algal selection by Heterostichus rostratus

Ngozi Ekwedike Dr. Andrew Lohmann Psychology Collective Effervescence in the South African Anti-Apartheid Movement

Ehab Elrashidy Dr. Daniel Whisler Mechanical Engineering CFD Analysis on Rowing Boat

Carter Elwood* Marc Simoes English Literature, Creative Writing Change and Permanence: An Exploration of Shadrack in Toni Morrison's Sula

Thesis Project

Business Administration, Management

Incorporating LGBTQ+ Based Fictional Texts

WhislerBiomedical/Clinical Engineering and Electrical Device for Muscular Stimulation for Atrophy in Hospital Patients

The Effects of Gender Role Strain Paradigm and Gender Essentialism on Self-Compassion Among Men: A Qualitative Analysis

Merna Farouk

Dr. Nicholas Perez Criminal Justice The Issue of Homelessness

Jean-Baptiste Faure

Dr. Michael Peterson **Physics Determining Magnetic Exchange Interactions** through Density Functional Theory

Christopher Forestiere

Dr. Marie Kelleher History

Kelly Freet

Dr. Oscar Morales-Ponce **Computer Science** Robot Coordination for Object Manipulation

Logan Furlong

Dr. Joseph Kalman Mechanical Engineering Design of Strand Burner

Jakob Gideon

Dr. Richard Haesly Economics and PsychologyMultilingualism in Switzerland: A Model for Peace and Prosperity

Alyssa Gutierrez

Dr. Joshua Cotter Kinesiology, Exercise Science, Minor in Psychology Effects of Blood Flow Restriction and Neuromuscular Electrical Stimulation on Strength and Body Composition of the Plantar Flexors

Syphong Ha** Dr. I-Hung Khoo Biomedical and Clinical Engineering

Songyi Han

Dr. Roger Lo Chemical Engineering A 3D-printed microfluidic gradient generator for cytotoxicity tests

Jadwiga Hescox

Dr. Carol-Ann Caesar Psychology Race, Income and Disproportionality in California: A Look at Special Education

Graduates List

*President's Scholar **Brotman Scholar

Devynne Honsa Jennifer Newton Journalism, Public Relations True Beauty: Analyzing the Authenticity and Ethics Behind Influencer Marketing Strategies in the Beauty and Fashion Industries

Elaine Jennings

Dr. Yolanda Green Social Work Systematic Review of Transracial Adoptions

Drew Jorgenson

Dr. Cora Goldstein Political Science The Marvel Cinematic Universe: Commentary on the United States of America

Robert Kellogg

Dr. Joseph Kalman Aerospace Engineering Synchrotron Based Measurement of the Temperature Dependent Thermal Expansion Coefficient of Ammonium Perchlorate

Do Kim** Dr. I-Hung KhooNo Biomedical and Clinical Engineering

Noah La Barba* Dr. Daniel Whisler Mechanical Engineering Design of a Boeing 737 Internal Wing Surface Cleaner

Christian Lee Dr. Sara Moghtadernejad Chemical Engineering

Tori Lentini Dr. Yada Treesukosol Psychology

Sierra Lara Lippold Dr. Peter A. Ammermann Finance Implementation of Managed Volatility and Covered Call Writing in the Beach Investment Group

> Christian Loo** Dr. Jason Schwans Biochemistru Pushing the Limits of Tyrosine Phenol Lyase

Esperanza Macedo Olga Grimalt English Education The Importance of Culturally Relevant Schooling

Ana Macias Silva Hyeesoo H.Chung Business Administration, Accountancy Are Out-of-Period Adjustments used as Earnings Management Tools?

Kativon Makary Dr. Danielle Kohfeldt Psychology Tackling Toxic Whiteness: The Role it Relationships in Developing a Critical Consciousness Among White Antiracist Organizers

Adam Manoogian

Dr. Arturo Zavala Psychology Role of AMPA Glutamate Receptors in Activityregulated Cytoskeleton-Associated Protein (Arc) Expression in Response to Cocaine-Associated Cues in Rats

Alexandra Mazza Dr. Will Wu Kinesiology, Exercise Science Brain Stimulation and Focus Attention Effects on Motor Control: Do We Get an Additive Effect on Kinetics and Performance

Paola Mendoza Dr. Dina Perrone Criminology and Criminal Justice

Jenelle Mendoza Dr. Linda Martinez Health Care Administration A Barrier in Between: An Examination of the Relationship Between Stigma and Mental Health Care Access in Japan and the United States

Griffin Miller Dr. Navdeep Singh Dhillon Mechanical Engineering

Kirsten Miller Jen-Mei Chang Applied Math: Science & Engineering Analysis of Algebra Placement at California State University Long Beach

Sona Minasyan Dr. Michael Gibbs Finance Persistence in Equity Mutual Fund Performance

Daniel Mittelstein Dr. Ehsan Barjasteh Mechanical Engineering Analysis of the Impact of Curing Pressure and Polyamide Hardener in Composite Material Strength

Rvan Moffit Mechanical Engineering Dr. Shahab Taherian

Jonathon Moore Tupas Dr. Theodore Stankowich Biology Brains vs. Brawn: The Energetic Trade-off of Sexual Weaponry and Encephalization

Kyle Neilson Dr. Joonhwan In Business Administration, Management and Office Supply Chain Management

Alan Nguyen Dr. Chris Najera Business Administration, Management

Timothy Nguyen Dr. Daniel Whisler Aerospace Engineering

Kennedie Onufrak Dr. Debra Pearce Kinesiology: Sport Psychology Utilization of Imagery in College Athletes

Alma Ortega Dr. Suzie Weng Social Work

Kade Peich Dr. Joseph Kalman Aerospace Engineering Statistical Model of Surface Heat Flux in Ammonium Perchlorate Based Solid Propellants

Joshua Thien Pham Dr. Sarah Schrank Management and Operation and Supply Chain Management The socioeconomic and cultural significance of designer luxury goods in the United States.

Kellev Pierce

Dr. Logan Esdale English Rhetoric and Composition The End of the Waiting Game: A Post-Structuralist Critique of Samuel Beckett's Plays

Joseph Porges*

Erika Holland Marine Biology Polyaromatic Hydrocarbons and their Oxygenated Metabolites Target Ion Channels in Zebrafish (Danio Rerio)

Brandon Pu

Dr. Jeannette Acevedo Rivera Kinesiology, Sports Psychology Analyzing Dual-Language Immersion Programs through the Lens of Community Cultural Wealth

Jessica Pugel* Dr. Bradley Pan-Weisz Psychology Trumped-up trickle-down negativity: A big data study of sentiment on Twitter

Melanie Rader** Dr. Kelly Young Molecular Cell Biology and Physiology Photoperiod Alters Testicular Methyltransferase Complex mRNA Expression in Male Siberian Hamsters

Andrew Roder Dr. Joseph Kalman Aerospace Engineering Thermodynamic analysis of solid metal combustion for desalination processes

Rocket Romano Dr. Mahdi Yoozbashizadeh Mechanical Engineering

Denys Rujchanarong Dr. Ashley Carter Biochemistry Testing for epigenetic effects caused by high and low sugar diets in Drosophila melanogaster

Emily Sanders Dr. Ted Yu Mechanical Engineering Evolution of the CHEM-E-CAR Team: Implementation of Management and Design Improvements

Joseline Santizo Dr. Samar Needham Psychology Effects of Subconscious Language Exposure on **Emotional Perception**

Ethan Saxe Dr. Tamara Thies Music Education Formal vs. Informal Education in Contemporary Music Education

Wesley Slates Dr. Mehrdad Aliasgari Computer Science A Survey of Current Ransomware Detection Mechanisms on Android-Based Devices

Joanna Small Alan Safer United States

Gillian Smit*

Cracked Lenses: A Novel

India Smith Kent Havward

Film and Electronic Arts The Making of 'HBD': Celebrating the Ordinary in the Lives of African Americans Through Film

Jonah Stoffers Dr. Teresa Wright **Political Science** Female Entrepreneurship in North Korea's Market Economy

Aminah Tamimi Dr. Daniel Whisler Mechanical Engineering

Sean Thenard Dr. Amv Wax Psychology

treatment

Impact Testing

Donna Tran Rafael Nieto Health Science, Community Health Education Patient Experience: The Heart of Health Care

Heidi Tran Mercedes Guilliaum Health Science The Role of Gender Bias in Underdiagnosis of Autism Spectrum Disorder in Females

Rvan Tran Dr. Margaret Kuo and Dr. Jane Dabel History Asian American Involvement in the San Francisco State Strike of 1968

Liam Twight* Dr. Stephen Mezyk Chemistru Kinetics of perfluorinated compounds and photolysis of chloramines in advanced water

Graduates List

*President's Scholar **Brotman Scholar

Business Administration, Marketing Productivity, Well-being, and Performancerelated Outcomes: A Comparison of Workload and Paid Time Off in Western Euriope and the

Suzanne Greenberg English Literature, Creative Writing

Development of a Hail Ice Replica Model for

Marina Ulloa

Dr. Edgar Kaskla Political Science, Minor in Chinese Language and Culture Understanding the Effects of Mass Surveillance on U.S. Citizens

Breanna Urasaki

Dr. Will Wu Kinesiology, Exercise Science Analyzing the Role of Augmented Feedback in Gait Training

CJ Valdez

Paul Boyd-Batstone Economics and Psychology The Comparative Impact of the Components of Growth Mindset

Dominique Vitanza**

Dr. Evan Schick Kinesiology Comparison of Muscle Activation in the Conventional, Sumo and Stiff-Leg Deadlift

Christy Vuong

Dr. Houng-Wei Tsai Biology, Molecular Cell and Physiology Sex Differences in Summed Gene Paralogue Expressions in Mouse Brain

Tian Walker

Zachary Dubois Anthropology Type One Diabetes and Instagram: An Exploration of How People Living with Type One Diabetes Use Instagram as a Resource

Kendall Woirhave

Dr. Connie Ireland Criminology and Criminal Justice A Sense of Direction: Guidance Counselors and Public High School Students' Outcomes

Jonah Zeko

Dr. Jason Whitehead Political Science The Effect of Christian Denominations on Politics

Jia Wen Zhong**

Dr. Mehrdad Aliasgari **Computer Science** Evaludation of Different Data Gathering Methods for Mobile IDs

Graduates List

"VOYAGER ON AN ANCIENT PATHWAY"

Poem and Photo Series by Taryn Williams

As I climb down the Caesarea amphitheater, stair-by-stair, I am submerged into the contention of the Jewish people.

As I hike up the ruins of Masada, step-by-step, I am saturated by the determination of the Jewish resistance against the Roman empire.

As I press against the Wailing wall and lift my gaze, stone-by-stone, I am deafened by the weeping over the destruction of the Temples.

As I walk through Yad Vashem, exhibit-by-exhibit, I am consumed with the terror of six million Jews.

As I wade through the Mediterranean ocean, wave-by-wave, I am flooded with sorrow which slowly washes away.

As I pass the sculptures at Mount Bental, piece-by-piece, I am reminded that art can be created from ash.

And as I sit here writing, line-by-line, I am comforted. For I am but a voyager on an ancient pathway, guided by the wisdom and courage of my people.

















"NORTHERN LIGHTS"



"SURF'S UP"



Oil Paintings by Jianna Florek

"SPRING UNSPRUNG"



Photo By Kaila Apostol

"TANK STUDY"



Creative Contributions

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California State University, Long Beach 1250 Bellflower Blvd. Library, Room 507 Long Beach, CA 90840

Winner: 2018 NCHC Newsletter Awards, Print, 2nd Place

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