SMART STORIES

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Honors Program
TEMPLE UNIVERSITY®

Research

Biological Science

Dhruti Patel

Biochemistry

My stipend afforded me the opportunity to volunteer as a research assistant at Fox Chase Cancer Center. This was an amazing opportunity for me because I was able to experience both the clinical and laboratory based aspects of research. Originally, I had planned to dedicate my 300 hours to working in the clinical field under Dr. Miller, however, I quickly realized that I would be able to get more out of my experience if I was able to get involved in lab based research as well. I was able to gain valuable skills such as learning to converse with patients on the phone, through letters, and of course in person when I was able to help recruit patients. Being able to work in a lab setting as well allowed me to witness how the work of many people is essential to any scientific development. I learned how important it was to be patient when working on a project since each step in its development can take several weeks or even months. I would have to say that this experience taught me a lot about patience, workload, and diligence.

Alexandria Barkman

Biology

I am currently working in Dr. Cordes' deep-sea marine ecology lab where I have been working/volunteering for 2.5 years now. I spent my summer interning with the Papahānaumokuākea Marine National Monument (PMNM) in Honolulu, Hawaii. My project was analyzing mesophotic reef ecosystems (at depths where there is light, but significantly less than the surface) and comparing them to shallow-water reef ecosystems. I am presenting my research the February at the 2016 Ocean Sciences meeting in New Orleans, Louisiana.

Noelle Sterling

Biology

In George Smith's lab I had opportunities to participate in every part of his graduate students' experiments. These experiments involved training rats to do behavioral exercises, spinal cord surgeries on the rats, recording behavioral tests, and eventually all analysis of tissues and behavior necessary to draw conclusions. Together, we used viral vectors to shut down areas of the red nucleus that work in proprioception and show that these neurons determine the level of movement that mammals enjoy. A necessary part of this process is analysis, and I was able to complete stainings on all kinds of tissue from spinal cord to cortex. I also learned more about neurological pathways and gained a better understanding of how the spinal cord works.

Alyssa Woodard Research

Biology

For my summer research I worked in Dr. Rachel Spigler's lab at Temple University. Our research focused on pollinators and the floral lifespan of Sabatia angularis. I had the opportunity to work with the greenhouse plants and edit protocols that would be used in a future greenhouse study. Furthermore, I had the opportunity to participate in our lab's field research for Sabatia angularis. As demanding and tiring as fieldwork was, I absolutely loved it.

Nigam Padhiar

Biology and Neuroscience

Lipase enzymes catalyze the degradation of certain isoforms of block copolymer micelle species. So far, two isoforms of the P. cepacia lipase have been identified in published research, and up to six were observed in still-unpublished work. This research aimed to characterize these isoform species and determine how many of them there are.

Nigam's Advice: Email faculty if you think their research is interesting, because they are usually very receptive and willing to meet with you.

David Gansen

Bioengineering

During this past summer I was trained as an assistant in the lab of Dana Merriman, PhD, as well as her colony of 13-lined ground squirrels. Her problem being addressed was the fact that only roughly 30% of mature females were successfully giving birth, so my goals upon arriving were as follows: construct a stanchion to easily photograph development of genitalia, an artificial den to observe numerous poorly understood behaviors, to assist in ongoing tests that monitor levels of estrogen and progesterone during pregnancy, and in the general care and feeding of captive squirrels. This experience was an enormously important milestone for me as it was my first lab experience in a professional setting, and allowed me to begin making contacts and connections in the scientific community.

Jerry So

Bioengineering

I had the great opportunity to conduct research at Fox Chase Cancer Center under the supervision of faculty in Dr. Cukierman's lab. Through my mentor Dr. Ruchi Malik, I had an amazing chance to delve further into my studies as I learned the importance of questioning the phenomena that surrounds pancreatic cancer and how it functions. By the end of the program, I was able to start optimizing the siRNA and analyze its effectiveness by quantifying the data found from the Western Blot. As a hopeful pre-medical Bioengineering student, research introduced an entirely new field of medicine to me, and has become something that I would want to continue conducting as I continue my academic career.

Leslie Abraham

Biology

Biofilms are a community of bacteria that are capable of adhering to abiotic surfaces. They have been found to be resistance to antibiotic treatment, which can be harmful when considering their adherence to medical devices or oil pipelines. This experience has allowed me to gain valuable lab experience which will be important if I apply to graduate school or pursue medical school.

*Leslie's Advice:*Connect with your teachers to find a spot in a research lab early, and attend every career/job fair to network!

Karen Gomez

Biochemistry

I worked as an undergraduate research assistant in the lab of Dr. Sudhir Kumar in the Institute for Genomics and Evolutionary Medicine at Temple University. I was part of a team researching new methods of tracking the evolution of cancerous tumors. We also evaluated the performances of four recently published clone inference methods using simulated data, and I presented a poster based on our findings, titled "Performance of computational methods for inferring tumor clones using multi-region

sequencing data," at the 2015 Society for Molecular Biology and Evolution conference in Vienna, Austria from July 12 to 15.

Devin Kolmetzky

Kinesiology

Mitochondrial calcium (mitoCa2+) dynamics are currently undergoing investigation because of its importance in both energy production and cell death. During times of stress, too much mitoCa2+ can collapse membrane potential causing the mitochondrial permeability transition pore to open, leading to necrotic cell death. This process is proposed to be a contributing factor in the development of heart failure. By understanding and manipulating a gene of interest, we hope to find therapeutic uses in heart-failure settings.

Aliza Abezis

Biology

STAT2 is a transcription factor widely recognized for its role in host defense against microbial attack and inflammation. My summer research focused on the implications of STAT2 proteins in melanoma and colorectal cancer development. Through side-by-side comparison of certain cell lines with pre-selected mutations, differences in cell division/growth, cell migration, etc. revealed where STAT2 contributes to the growth and metastases of cancer cells. Based on these findings, we aimed to determine the underlying molecular mechanism by which STAT2 promotes cancer development. Finding these mechanisms would allow future researchers to develop targeted treatment options for patients with cancers.

Jan Angeles

Biology

Over the summer, I studied the growth and feeding of two species of mixotrophic microalgae. I observed a species of Dinobryon and its feeding and population growth in varying conditions. A second experiment was conducted examining the growth and feeding of a species of Ochromonas and the same species of Dinobryon from the previous experiment. Through these experiments, I gained experience working in a laboratory setting. I learned how to use various laboratory equipment properly and especially gained experience in microscopy. My summer experience has developed my laboratory skills and prepared me for future work in research.

Rachel Paul

Biology

I worked with a graduate student in the Rothberg lab in the Department of Medical Genetics & Molecular Biochemistry. The lab uses protein crystallization and X-ray data of the crystals to solve protein structures. Proteins observed include prokaryotic protein, induced into E. coli bacteria cultures, and eukaryotic/human protein, added to insect cell cultures via viral infection. Crystal trays are set up with a microliter of protein sample along with varied conditions, in an effort to establish an equilibrium condition ideal for crystal formation.

Daniel Gritsyuk

Neuroscience

I treated various cancer cell lines with DNA repair inhibitors to demonstrate that the leukemia and breast cancer cells that lack certain DNA repair genes tend to die due to the lack of a secondary DNA

repair pathway, unlike healthy cells. I also compiled data that showed that patients whose cancers were deficient in genes needed for the DNA repair pathways would be the most susceptible to treatment by DNA repair inhibitors. This experience is significant because it shows one approach to the safe treatment of leukemia and breast cancers. *Daniel's Advice:* You need a strong background in computer science and statistics to make the most of this research experience.

Gabriella Lobitz

Biology

For my research, I was responsible for determining the genotypes of fourteen separate samples of blind snakes from Indonesia. The purpose of the project was to determine if each specimen was a previously discovered species, or a new species indigenous to the islands. The constructed phylogenetic tree was rooted with various other, similar species to determine genetic differences. I also was exposed to a full time research environment, giving me an idea of what a career as a molecular biologist may be like.

Sarah Cohen

Neuroscience

In my summer research project, I investigated a brain region, the basal nucleus, by which a stress hormone disrupts sustained attention in rats. This was done by infusing low and high doses of the stress hormone into specific brain regions and observing subsequent performance during the sustained attention task. Altered performance indicates that the region is a site of stress regulation of attention circuitry. I will be able to use the techniques I learned throughout this project in current and future laboratory settings. In addition to my refined set of scientific skills, I have also been encouraged to work efficiently within a team and make decisions based on data that has been collected. *Sarah's Advice:* Start searching early to find the best opportunity that fits your interests.

Dalia Al-Bataineh

Biology

This summer I worked in a cardiovascular disease research lab with Dr. Recchia at the medical school. My responsibilities included taking care of the dogs that we do research on, assisting during open heart surgery, performing experiments on the dogs and monitoring their heart failure, and I also learned how to stain slides and focused on the histology of cardiomyocytes.

Daniel Reiners

Bioengineering/Premed

The research I worked on had me performing several types of histological stains. The point of the stains was to identify whether the soy scaffolds, electrospun soy proteins, were effective in the treatment of deep tissue wounds. The idea was not necessarily faster healing, but a better healing. The idea is to have the wounded tissue regrow with the characteristics of normal skin, more structures like sweat glands and blood vessels and hair follicles. This experience really helped me apply my bioengineering major to real world applications.

Victoria Cantoral

Neuroscience Cellular and Molecular

This semester, I have been working closely with Dr. Paul Katz, a neurologist at Temple Hospital (and professor at Lewis Katz School of Medicine). I work in his Stroke Program, collecting abundant data on stroke patients. I also have been conducting research in the Neuroendocrinology and Behavior

Laboratory with Dr. Bangasser. Lastly, I have recently been elected Vice President of Alpha Epsilon Delta, which is a Health Pre-Professional Honor Society.

Abyaad Kashem

Biophysics/Mathematics

My work at Harvard Medical School's Beth Israel Medical Deaconess Center dealt with cardiac magnetic resonance (CMR) imaging. After gaining functional knowledge of CMR physics, I used in-house mapping software to analyze images of the heart from patients with abnormal cardiac function. During my work, I coordinated projects with researchers of different backgrounds (postdoctoral fellows, PhDs, physicians, CMR technologists). I even shadowed residents, attendings, and fellows during inpatient and outpatient rounds at the Cardiovascular Institute and the Cardiac Intensive Care Unit. My research has resulted in multiple papers and abstracts, which are submitted to high-impact cardiology journals.
Abyaad's Advice: Try getting in touch with researchers who are working in fields that you have extensive interest or experience in.

Mazeeya Khan

Biochemistry

Hospitals have developed protocols to control glucose concentrations using glucose meters because keeping a patient's blood glucose near normal helps in their recovery. This project involved looking at the importance of these tight glycemic protocols by comparing glucose results from glucose meters and laboratory instruments. We determined whether the manufacturer of the glucose meter had performed interference studies on our instruments and if they had not we developed an interference study protocol. Based on this research manufacturers can make better instruments for the management of patients.

Technology

Fiona Galzarano

Mathematics

I spent eight weeks on Cornell's campus working with undergraduate students from around the country on mathematical research. I worked with Dr. Robert Strichartz, who is a leading researcher in the field of fractal analysis. We spent most of our time collecting and analyzing experimental data collected in Matlab with the ultimate goal of defining a Laplacian over the Apollonian gasket.

Isaac Abraham

Biology

I spent my stipend on utilizing both computer science knowledge and "big" biological data in order to create an interpretable list of cancer/cancer mutations with a gender/race bias. I downloaded data from The Cancer Genome Atlas (TCGA), online, and extracted and sifted through the data with a program that I had coded. The results were then printed to a designated Excel file, and will be used to possibly discover new correlations between certain cancers/genes and races/genders. One or two publications are likely to come from this work. ThIn addition, my coding skills have improved as I had to learn new ways to extract and print out the data efficiently. In a medical world that is becoming increasingly dependent on computer technology, such skills are valuable in future professional settings. Also, this experience allows me to explore upon my interest in both computer science and medicine, making me a more well-rounded candidate for future career positions.

Joshua Lloret

Math and Computer Science

The intent of our project was to improve campus safety through more efficient use of police surveillance technology. The problems presented were threefold: install cameras in police vehicles, stream live video to processing servers, and computationally analyze video for anything of interest. My group was responsible for the second problem, streaming the video from the cars to the servers. Campus WiFi was too weak to handle this task on its own, so we decided to use a combination of WiFi, 4G LTE, and WiMAX. We tested the network throughput in different spots around campus to get a base reading on how much data we could reasonably expect to upload. A lot of advances in networking are expected to come out of SDN-based techniques, so I've gained a valuable leg up from my experience with this emerging technology.

Quinn Heath

Computer Science / Criminal Justice

This project explores how computer hackers and criminals view themselves in relation to public culture. Recently, there has been an influx of material depicting hackers and cybercriminals through a variety of mediums, including movies, television shows, and the news. Previous academic works have pointed out a number of "hacker myths" that are commonly present in modern media. This project aims to reconcile the media's portrayals of hackers with the views that these hackers have of themselves and how they feel they are portrayed. An analysis was performed on recent media productions featuring hackers. Following this analysis, interviews were performed with hackers themselves in order to obtain their views on their representation in the media and its accuracy. By participating in this research project, I gained valuable skills in the area of research, and have learned a great deal about the process of creating, editing, and presenting research professionally.

Engineering

Joseph Teitelman

Mechanical Engineering

This summer three other undergraduate students and I researched the very new fields of programmable matter and 4-D printing. The basis of this research is utilizing smart materials that can be predictably controlled by an external stimulus. By exploiting these materials with a number of stimuli including heat, light and submergence in water, we are able to get an autonomous change from an otherwise stagnant object. By adding this concept to the already popular 3-D printing, pieces can be designed and printed using smart materials that can then predictably change shape, size and even function without the use of electricity or human interference. The manipulation of smart materials has extremely exciting application to the real world.

Eric Mikitka

Bioengineering

Full thickness wounds, such as those common in 3rd degree burns and chronic diabetic ulcers, present a challenge healing with functionality of the new tissue (i.e., sweat glands, hair follicles) and minimal scarring. Fibrous scaffolds derived from natural soy proteins show a positive effect on healing full thickness excisional wounds in animal models such as the rat and pig. To understand how well the soy protein isolate (SPI) scaffolds work to heal wounded tissue, histology was completed on the tissues harvested from soy treated or untreated wounds in these animal models. Combining the histology

results with the immunohistochemisty (CD31, SMA, L1), we are gathering conclusive data to represent a more natural wound healing process in soy treated wounds.

Winston Colburn

Bioengineering

I worked as a research assistant in the bioengineering labs in the College of Engineering. Specifically, my project was an infrared spectroscopic assessment of cell culture media. In order to test the cartilage as it is growing, current methods require destruction of the scaffold. My project took a different approach and rather than destroying the scaffold, we tested the cell culture media surrounding it in order to make inferences about the composition of the scaffold itself. The skills I learned and connections I made over the past ten weeks will bolster my classroom abilities and give rise to further engineering internship and research opportunities.

Timothy Schisselbauer

Bioengineering

For my project, I performed research in Dr. Lelkes' bioengineering lab. I worked alongside a graduate student producing cellular scaffolds to support neuronal cells. I spent time engineering the freezing process by designing a program and control system to regulate the rate at which the samples were cooled, thus determining their structural properties. I also spent time learning cell culture techniques and working with different cell lines that will eventually be used in these scaffolds.

Lawrence Gardner

Mechanical Engineering

The project I worked on is about how walking on a complex surface affects the gait of cellar spiders and how they react accordingly. My aim as a mechanical engineer is to study this behavior and connect it to the field of rescue robotics in order to come up with a hypothetical robot that can walk and adapt as a cellar spider does over rough terrain. My plan is to use this summer as a launching point to get more serious about the field of robotics. *Lawrence's Advice:* If there is a professor whose work interests you, just ask. Don't become intimidated; send an email and then follow up.

Physical Sciences

Tanvir Saurav

Mechanical Engineering

As a part of this research, I worked closely with my supervisor to study the behavior of magnetic domain in different materials. We learned how to use different state-of-the-art machines to observe, acquire and analyze data. We closely observed how magnetic domains can show certain properties under unusual conditions which may lead to new discovery and invention of advanced machineries. This experience was significant for me because it taught me how to work in a research environment and maintain coordination with lab partners. Because I plan to go for grad studies, this experience will help me in the future to work in research fields, and it will also help me in professional field to work better in a group.

Marcus Forst

Physics

From April to November, I survived a rigorous chemotherapy regimen designed to rid me of my Stage IV Lymphoblastic Lymphoma tumor residing around my heart. In our many car rides to treatment I listened

to two audio books and read others—some books for pleasure, some textbooks for class, and some textbooks for pleasure. I planned for my 30 minutes of energy per day; When I was feeling my best, I was able to come into Temple (with little hair, a white pallor, and a yellow mask) and work on the research that I had planned to do over the summer. All in all, we were able to study a special type of magnets called "Bloch Magnets" that are made up of lots of little cell-like magnets. Bloch Magnets can therefore act as small individual magnets or a big magnet depending on the strength of the field that they are in. I am now in the "Maintenance" portion of my chemotherapy, completed my research and returning to school. I am able to come to Temple and finish up my Calculus 3 and Physics 2 honors classes. I have resumed my duties as a manager for the Temple University Men's Basketball team. I hope to resume my place as a trombone player in the Philadelphia Youth Orchestra soon.

Connor Magura

Biology

I spent a majority of my time working Dr. Weidong Yang's Lab at Temple University. Our lab focuses on using Super Resolution and SPEED microscopy to reach an unprecedented high resolution that allows us to visualize cells on a nanoscale level. Using this technique I began work on a project aimed at viewing the import of green fluorescent protein into the cell. This project was put on hold as a different project arose which involved investigating the infection of the Adeno Associated Virus (AAV) in human cells and how the virus entered the nucleus of the cell. As well as researching, I spent time interning with Dr. Kaiser, a thoracic surgeon, at Temple University Hospital.

Kaitlyn Dutton

Cellular and Molecular Neuroscience

Acid-Mine Drainage is a destructive waste product of the oxidation of sulfide-mineral compounds, namely pyrite or iron sulfide. The oxidation of pyrite is a natural reaction expedited by humans. A proposed, and now investigated, solution to this ongoing issue is the use of siderophores. Removing these ions from solution will, theoretically, reduce the acidity of acid mine drainage. After the investigation, we confirmed that the presence of siderophores in pyrite solution slowed the oxidation of the mineral and reduced the production of acid in solution. The work I completed will be published in a scientific journal, which will open up doors for me in the future. *Kaitlyn's Advice:* Start searching early, around October or November, because spaces fill up quickly. Go to professors and ask about their interests

Social Sciences

Lisa Schroeder

World Languages/Classics

I began by examining the AP Latin curriculum in order to determine a section of Virgil's Aeneid that would be relevant to high school students. I translated a section so that I could get a feel for tough sections, marking complex or grammatically unusual sentences as I went along. I did research into the mythological and cultural allusions in the piece and read other scholarly works on the section to have a more thorough understanding of the selection and to add to the written commentary (essentially footnotes). It kept my Latin skills in practice and gave me additional practice with academic research. These skills will continue to serve me since Latin skills and academic research are key components of my Classics major, and the focus on identifying and clarifying potential problem spots for students is an essential part of my goal of becoming a teacher. *Lisa's Advice:* Reach out to your professors! Dr. Gerrish was extremely important in creating this opportunity for me.

Nick McCloskey

Neuroscience: Cellular and Molecular

I worked in Dr. Nazbanou Nozari's lab helping to counterbalance and implement a study on English-Spanish bilingual language monitoring. It investigates the error detection mechanism behind speech, specifically the components governing the specific type of activation conflict arising between cognate word nodes, which have extensively similar semantic and phonological connections. This experiment conflates my interests in neuroscience, linguistics, and Spanish, and helped me further my knowledge in all of them.

Natalie Corbett

Psychology

I read existing literature on the motivation in mathematics landscape in middle-school students, as well as articles regarding procedural knowledge, self-efficacy, and achievement in math. Using data collected from the 2011-2012 school year, I examined middle school students who declined in both math procedural skills and motivation over time in a quasi-experimental design that used pre- and posttests, and wrote a research paper on it.

Christopher Persaud

Sociology and French/LGBT Studies

I am now working as a program assistant to the Mental Health and Wellbeing initiative through the Wellness Resource Center. I get to combine the research and writing skills that I've developed through my academics with my desire to make a positive impact on the Temple student body. I am also incredibly excited for next semester as I'm going to be a Diamond Peer Teacher for Honors Introduction to Sociology with Professor Altimore. Along with the research that I got to take part in this past summer at Harvard, it's one step closer to my dream of being a college professor some day!

Jose Francisco Calva Moreno

Biochemistry

For my research, I was able to work closely with diabetic patients suffering from Diabetic Retinopathy in order to further understand the biochemical mechanisms leading to such condition. The lab experience was not only instructing but very engaging, because I was able to use and experiment with state of the art equipment in order to cooperate throughout the research. As of now we are contemplating publishing a paper soon and presenting the results at an ARVO and ASH conferences. *Jose's Advice:* Try out a few new things, it was great for me to jump from bacteriology to clinical research.

Jeffrey Durelli

Electrical Engineering with a Concentration in Computers

A web application for the Children's Hospital of Philadelphia (CHOP) was created for the use of survey management and creation. Integrating Item Response Theory (IRT) into the survey algorithm allows doctors to ask the right questions depending on a patient's answers. This also cuts back on the number of questions that a patient needs to answer before a proper analysis on their results can be computed. As a follow up to making the survey process smoother and easier for children, interaction through NAO robots is being looked into. *Jeffery's Advice:* Start early. Find a professor and try to work with/for him/her in any way possible as soon as you can. Be interested.

Jacqueline Sayoc

Neuroscience Cellular and Molecular

For the first part of my stipend experience, I interned at a hospital and participated in patient differentials, observing various attending physicians and talking with patients. For the second part I researched, created, and fine-tuned a battery of questionnaires and exams for physicians to apply to the Multiple Sclerosis patients of the Neurology clinic. In the end, I came up with a 7-part exam taking approximately 20 minutes. My battery is now a part of the MS patient experience at the clinic to ascertain quality of life, pain, and overall experience of disease.

Jacqueline's Advice: For anyone seeking valuable opportunities, ask upperclassmen, friends or family. I am sure they're more than happy to share their experiences and connections.

Elliot Bickel

Mathematics with Teaching

I worked as a research assistant on a project that studies the ways students use critical evaluation when presented with the task of explaining the connections between evidence and complex models in high-school level science classrooms. I compiled data for statistical analysis, provided initial interpretations, feedback on work done by the rest of the research team, and insight that I gained by personally studying the students and their work.*Elliot's Advice:* Get to know your professors, and don't be afraid to show interest in work even if it seems out of your reach.

Business Research

Sean Dougherty & Andrew Drake

Finance, Accounting

We conducted self-guided research on which of the six leadership styles is superior. We studied sixty companies in the technology industry that have gone public since the year 2000, and profiled the CEOs that were in charge at the time of the IPO. Using information available on the internet, mainly interviews, we assigned each CEO one to two leadership styles. Then, we grouped CEOs together based on leadership style, and analyzed which style had the strongest IPO returns on average. We found that pace-setting leaders earned the strongest returns. In profiling sixty CEOs (some good, some bad), I learned much about emotional intelligence and what it takes to drive people to success, that I will use throughout my professional career. *Sean and Andrew's Advice:* Pick something that interests you. Also, manage your time well; it is self-guided research.

Andreas Kraus

Mathematical Economics

In my stipend experience, I assisted Professor Leeds in his research on the economics of sports in two different projects. In the first project, I gathered high school tennis tournament results to match the college and professional results that Professor Leeds already had. We focused our research towards the area of gender differences or non-differences. The second project is focused on the NBA and determining how to translate performance to a monetary value for salary. I value how I was able to combine two of my interest areas into one area for academic research.

Joseph Regina

Human Resource Management

I participated in an off-site research team directed by Dr Crystal Harold and Dr Brian Holtz from the Fox School of Business. My role was two-fold, but both areas focused on examining the role of passive

leadership in business. Considering my major is human resource management, I think that this connection between my major and my research topic is very linear and apparent. After concluding this research I feel that I understand passive leadership in far greater depth than I did at the conclusion of the spring semester. I think that regardless of whether I choose to attend graduate school or enter into the traditional corporate world that what I have learned through this experience will surely be of use to me. *Joseph's Advice:* Speak to professors about their research during their office hours.

Mason Gallik

Finance, Real Estate

I started off learning about Vietnamese society and how its unique economy operates. After some initial reading, I realized that corruption is a major problem in society, and that I could explore its effects on Vietnam's transition to a market economy. I continued researching corruption in Vietnam and had an excellent understanding of it going into my trip. However, during the trip I was exposed to its true scope, and used several examples from the trip in my paper. Not only did this experience allow me to learn about a culture all summer, but I was then able to experience what I was researching and its effects firsthand.

Derek Gibbs

Finance and MIS

I pursued research in creating a technology startup that allows students to automate their syllabi in a calendar format. I worked together with a professor to research technology startups and develop a business plan revolving around various revenue models. The research involved determining market sizes and segments as well as deciding on the best revenue to model to capture market value. The most valuable lesson was learning how to create checkpoints and track progress when the project is incredibly flexible and independent.

Study Abroad

Temple Rome

Elizabeth Underwood

Graphic Design

This summer I studied abroad in Italy at Temple Rome. I participated in the Collaborative Design Workshop course, in which I collaborated with journalism and design students to compile a book about our experiences in Rome. As a graphic designer, the more diverse cultures, ideas, and knowledge I am exposed to, the better equipped I am to create work that communicates effectively and makes an impact. My studies in Italy have provided vast insight into my fields of study which will serve me well in both my academic and professional careers. I also gained greater cultural sensitivity and further understanding of my role and position as a global citizen.

Amanda Wolfgang

Actuarial Science

I studied abroad in Rome, Italy where I spent six weeks in Rome, and took two classes: The History of Art in Rome and Roman History. One of my favorite aspects of the study abroad program in Rome was the fact that for half of my classes we were in the classroom but for the other half we went out into the city and learned on site. Rome was such an amazing place to see and experience and while I did a lot of

sightseeing and on my own, to get to return to places like the Roman Forum with class and learn things I never would have known on my own was truly amazing. I was also able to travel outside of Rome but within Italy to Venice, Florence and the Amalfi Coast. *Amanda's Advice:* Take classes completely different from your major.

Giang Phung

Architecture

I spent 4 weeks in Prague studying Art & Architecture History and getting myself immersed in the old but vibrant capital city of the Czech Republic. The course I took directly related to my major and I learned not only from lessons in class but most effectively from our daily academic trips. CIEE also organized two academic tour to different cities in Czech and one cultural tour to Berlin over the weekends, along with multiple extracurricular activities with our Czech buddies, who we shared our apartments with. For an Architecture student like me, traveling itself is the foundation and stimulation for any great ideas. The more I can see, the better I can observe and absorb. This program was a wonderful cultural and educational experience that cleared my doubts of why I should follow the career path I am following now.

Kenneth Woodring

Finance

I studied abroad at Temple's Rome Undergraduate Program. For six weeks, I had the privilege studying and living in the "Eternal City" of Rome. Studying abroad was my first extended period of time living outside of the United States, and this cultural experience will prove to be valuable for my future. More specifically, as a business major, I was fortunate to study, observe, and participate in European business practices, expanding the breadth of my knowledge of the world. Most importantly I went outside of my comfort zone, explored the world, and bettered myself from it. I now view the world more openly and am more understanding of personal and cultural differences. *Kenneth's Advice:* If you have any interest in studying abroad, go without hesitating.

England

Nicholas McMenamin

English

This past summer was a wealthy experience for me. The classes that I took were taught wonderfully and the fact that the program took place where the writers were crafting the works hundreds of years ago was astounding. Being in London was a fantastic experience; however, being able to connect readings to actual places, which would have been impossible here at Temple, made all the difference. Seeing plays at The Globe and walking along the Avon give you a glance at what time during Shakespeare's life would have been like, making the texts more relatable. These are memories that I will never forget.

Hari Murali

Finance

My summer stipend experience consisted of spending a summer abroad in London, England with the Boston University London Internship program. During my six weeks of classes I took two business classes that looked at the world of finance and economics through a European perspective. The second half of the program consisted of my internship with Citco London Limited, a large financial administration firm. Through these experiences I learned about the different work culture that exists in the UK compared to

the United States. The much more laid back workplace and more social attitude is something I enjoyed and made London a place I would love to work in the future.

Amelia Schunder

Secondary English Education

I had the distinct pleasure of reading and analyzing English texts in the very place they were written. I was able to see six major theater productions in six weeks, as well as travel all over the city of London and other destinations. I made great new friends and professional connections that I will certainly use down the line. Additionally, I contracted an Honors Course that involved an interview with a professional at a theater company and analyzing academic readings to accompany it. I compiled my findings into a final paper, which discussed my understanding of the different approaches and strategies used to teaching Shakespeare to secondary level students.

Temple Japan

Isabel Noboa

Biology

I spent semester in an international guest house in Japan. During my 10 weeks abroad, I met people from over 15 different countries. I was able to connect with my roommates and learn about other cultures, not just Japanese culture. I took psychology courses for my psychology minor in addition to an Asian studies course. I often travelled outside of Tokyo, visiting the beach, a green tea farm, the longest wooden bridge in the world, Yokohama, and other exciting attractions and cities. Aside from my academics and adventures, I tried varieties of food that have never been available to me, such as whale bacon, crocodile, takoyaki, yakisoba, muri, okonomiyaki and so many more dishes.

Ireland

Benjamin Kellett

Actuarial Science

Our program was centered around the history and culture of Ireland and the troubles that occurred in the town we studied in. We toured the historic Bogside, and learned about the centuries of tension between the British and the Irish. Not only did we look into the wars and rebellions between the two, we looked at how the country's history affected the literature of the nation. While hiking through national and remote parks, we learned folk tales and historic stories that shaped the country to become what it is today. We heard from local musicians, a former ambassador, a Nobel Peace Prize winner, a member of the local government, and a few more.

Alexandra Cleary

Kinesiology

We were immersed in Irish culture, and educated about the conflict between Ireland and England. It was an incredibly enlightening experience, which highlighted the importance of cooperation, independence, and ongoing social struggle around the world. Previous to the class, I had been totally oblivious to the issues of Ireland, which have been occurring for the past hundred years. Our professor had actually lived in the area of town that became a war zone in the 1970s, during the height of tension, so his contributions were incredibly valuable to our education. We also learned about the more joyful aspects of Irish culture, to include traditional music, literature, and gorgeous hikes around the countryside. Mr. Mullan was an excellent guide on the hikes, and managed to get live musicians come into class to talk

about the making of old and new music. Dr. Gudrun brought out the finer points of Irish literature, and helped me appreciate it in a new light, especially when placed into historical context. This experience has prepared me to accept and cooperate with all varieties of backgrounds, and better understand the struggles of my own heritage.

Sean Martin

Electrical Engineering

I took an Honors Special Topics Course while abroad in Northern Ireland entitled Building Bridges in Ireland. I learned a great deal about Irish history and culture, with much of the focus being on how the country ended and is recovering from The Troubles. The course allowed us to meet Irish artists, authors, musicians, and even Nobel Peace Prize Laureate John Hume. Moreover, we examined Irish literature and were tasked with researching a topic of our choosing. Overall, the course was a valuable academic experience for an engineering student who normally would not have been able to study history.
Sean's Advice: The best way to find a similar opportunity is to plan early.

Other Experiences Abroad

Samantha Rogers

Psychology

I had the opportunity to go to Seville, Spain where I took part in the Language in Society program, which has the goal of immersing us in Spanish and learning as much about Spain as possible. All of my classes and guided tours were taught in Spanish and they encouraged us to learn outside of the classroom as much as possible. I took a Spanish grammar class and a class on the three big religions in Spain: Islam, Judaism, and Christianity. My classes and the program encouraged me to explore Seville and Spain on my own—I was able to go to many museums, churches, mosques, and other places of historical significance. I loved exploring Spain and interacting with people of different cultures and backgrounds.

Gabrielle Finley

Undeclared

This summer I used my stipend to help reimburse the funds I put towards attending the Destination Western Europe undergraduate study abroad program led by Professor Michael McCloskey. This program was a short-term study abroad program in which we traveled to London, Rome, and Munich. The program combined academic material with corporate exposure and cultural experiences. It exposed the students that attended to corporations in foreign countries and gave us a glimpse of how businesses operate in those countries. We met with employees from several different corporations within the insurance industry to learn what they do on a day-to-day basis. By visiting companies in three different countries in such a short time frame, we were able to see how the insurance industry differs between those countries and how the people's overall concept of risk differs. Besides the academic and business aspect of the trip, we were able to sight see and visit historically and culturally significant places within each country. Overall it was an amazing experience that gave me a better sense for what majors and career paths I would enjoy and excel in while providing me with connections to corporations and employers in Europe.

David Drennan

Economics/Global Studies

Spending seven weeks in Brussels, Belgium, I partook in cultural and academic experiences during my first long-term stint abroad. I studied the European Union and the psychology of group dynamics. The

former was extremely gratifying, and took me all across the city to the various institutions of the European Union, where EU officials would speak to us about day-to-day life in the eyes of someone who handles important work for the unique government system.Ultimately, the experience made me realize how interested I am in politics and has pushed me towards wanting to mix business and politics as a future career. *David's Advice:* Search as long as you need to in order to find a place that fits your personality. Don't just follow your friends.

Gabriela Rodriguez

Neuroscience

This summer I completed El Camino de Santiago, a 791 kilometer (490 mile) pilgrimage that starts in France and crosses northern Spain which took me thirty days to complete. I crossed two mountain ranges and the infamous Spanish Meseta, a very flat but very hot and dry plateau. I slept in rooms with more than 400 bunk beds, showered in front of total strangers, and walked until I could walk no further. The experience changed my life. Not only was I able to practice and continue to learn about the Spanish language, but I now have friends and contacts all over the world. Every day I met new people from different cultures, people that spoke six or seven languages, and people that inspired me. Because of my experience I have decided to change my course of study to culture and languages. I want to become a professional that can help the world accept its beautiful diversity, a world which I caught a glimpse of for the very first time, on the Camino to Santiago. *Gabriela's Advice:* Do research and find the opportunities that are right for you. Pretty much anything you could imagine, exists.

Joseph Casiano

Communication Studies

The program that I took part in involved a close look at various institutions, communities, organizations and aspects of New York's Manhattan area. We accomplished this via a combination of professor-guided tours around important areas, such as Grand Central station, various museums, and Central park, group or independent visits to different buildings and areas (streams), and independent projects based on a community and institution of our choice. From this course, I was able to produce writing pieces that investigate what exactly makes New York so diverse and significant from both a historical and a present standpoint, and gain an appreciation for the nuances and subtleties that makes every place there so important to the city and the idea of a city. These experiences have added to my understanding of a variety of topics, such as culture and socioeconomic issues, which will assist not only discussing such topics academically, but will also give me a point of reference in the business world, where such issues are ever-present.

Sara Paul

Advertising

I lived in a French pension and took a French course at the Sorbonne for a month. The course was challenging and a great asset in helping me progress in French; but the most resonant part of the trip was getting to experience and be a part of French culture. Whether it was going to the Louvre, sitting at an outdoor café or listening to the other French residents at the pension, I felt like I was immersed in the Parisian life. This trip gave my interest in the French language a more solid meaning, which was important to me because when learning in the classroom, it was easy to lose sight of the practicality of continuing French when not that many people speak French in the US.

Lani Assaf

Spanish and Public Relations

My stipend experience consisted of one month of living with a Costa Rican host family, attending a Costa Rican University. I lived in the capital, San José, and attended Spanish classes at Veritas University. I was able to explore the various sites, museums, and markets of San José during the free afternoons. In the evenings, I'd always have dinner with my host family, continuing the constant Spanish immersion process. On the weekends, the study abroad organization helped my fellow American travelers and me book trips to Puerto Viejo, the beaches of Costa Rica, and Monteverde, the lush green mountains of the north. The experience was hugely beneficial to my learning Spanish. Being constantly immersed, I was able to practice speaking and listening all the time, which I believe are the two most important skills to have in any foreign language. *Lani's Advice:* Do your own research! There are tons of well-priced, study abroad programs out there.

Navya Reddy

Information Science Technologies

The experience I had in Cuba was one which I would never forget. I learned about the fascinating political relations between the United States and Cuba as well as immersed myself in a language and culture which was completely foreign to me. This was truly a chance to visit a country which had for so long been impossible to visit. Learning about the importance of modern technology, which Cuba lacks, I am so much more motivated to learn about information systems and see how they can change an environment.

Michael McDermott

Economics/Spanish

I studied abroad in Havana, Cuba at the University of Havana, the oldest and most prestigious institution in the country, through a program organized by Arcadia University. I immersed myself in the Cuban culture, communicating with native Spanish speakers every day, meeting for a dialogue with students from the University, visiting several important historical and cultural sites in Havana and the surrounding region. My Spanish abilities improved immensely as a result of the immersion, as did my understanding of the little-understood Cuban culture. Furthermore, the experience gave me an insider's perspective on the ongoing thaw in diplomatic relations between the United States and Cuba at a time when very few had that privilege. *Michael's Advice:* Before traveling abroad, learn as much as you can about the history and language of the area.

Volunteering While Abroad

Lauren Beckett

Biology

For two months, I practiced my Spanish with two host families in Huancayo and La Merced, with random taxi drivers, local residents, and patients in the hospitals. During the hospital rounds and while observing surgeries, my group and I practiced translating the doctor's notes from Spanish to English. As the trip progressed, I became a translator when our site coordinator was not available. I was selected to bargain with the taxi drivers, explain blood pressure results, and pose questions to the doctors and then proceed to explain the answer to my peers. Although I am not yet fluent, my Spanish allowed me to learn more about medicine, which was one of my main goals for this trip.

Akash Kanneganti

Biology

First I interned and shadowed at ADENA Hospital in Ohio. Here I was able to follow a dermatologist, nephrologist, and otolaryngologist, as well as work in a dermatopathology lab and analyze different cancerous skin cells. My second experience took place in La Merced and Huancayo, Peru as part of the FIMRC Summer Internship. I learned how to take blood pressure, suture, apply fluoride and a multitude of other techniques through the numerous health campaigns that we did.

Michaiah Hughes

Kinesiology

During my internship in the Dominican Republic, I designed a First Responder curriculum for training rural health care providers, developed a supply order form for restocking first aid kids, and prepared a patient information and treatment sheet to serve as a record of patients seen and care provided. Overall, this experience demonstrated the importance of combining individualized medical care with community health education and outreaches. I also volunteered on Harleysville Ambulance, which allowed me practice medicine as an Emergency Medical Technician.

Poushali Pai

Biology

My four-week volunteer experience in Peru through the Foundation for International Medical Relief of Children was a humbling experience where I got to see how essential public health and health education are in places where they do not even know how to properly brush their teeth. It felt very rewarding to educate children on baseline health, interact with doctors, and even see surgical procedures in the operation room firsthand. After returning home I spent four weeks as an intern at a hospice company and I was able to learn all about hospice and how to care for patients and ensure quality of life at the end of their lives. Although I was initially afraid of death, this experience taught me appropriate bedside manner. *Poushali's Advice:* Talk to others who have used their stipends and go beyond Temple programs to find something right for you.

Jillian Piskorski

Biology

I spent time working at two hospitals (Kodaikanal Health and Medical Services Hospital and Pasam Health Center), two rural clinics, and four creches, which are preschools. In the hospitals, I was shadowing doctors, observing surgeries, assisting in physical therapy, taking vital signs, wrapping wounds, and other medical-related procedures. In the rural clinics, we went into areas without doctors a few days a week with a local physician to help anyone who needed to see a doctor. I gave injections and shadowed. In the preschools, I observed checkups for the children and interacted closely with them, which provided me with a unique and truly wonderful cultural experience. Finally, for new children entering the creches, I went around the town to do surveys of their homes, detailing what kind of floors and ceilings they had, whether they had a bathroom and how people lived there. *Jillian's Advice:* Make sure you properly prepare yourself mentally to enter a completely different culture if you choose to travel abroad!

Daniella Wong

Neuroscience

I partook in a Health and Community Development program in Cape Town, South Africa for seven weeks. In lecture, we learned about the history of South Africa and the legacy of the apartheid regime that has influenced the country's dynamics today. The service-learning component consisted of volunteering and shadowing at primary and tertiary hospitals, which exposed us to health care on the level of patient interactions as well as scrubbing in to observe surgical procedures. Our program scheduled many cultural tours of the surrounding area during our month and a half stay, which allowed us to become more fully immersed into the land itself, rather than remain tourists.
Daniella's Advice: Any student looking to travel abroad should always have an open mind to fully immerse into the new land.

Research Abroad/Away

Lauren Ruhnke

Global Studies

I spent 30 days living in Dhrangadhra and interacting with various local groups. Through observation and first person interview, I aimed to identify the norms of womanhood in the town of Dhrangadhra. These norms are often characterized by strong religious ties, an historically male dominated culture, and the strong influence of family in household structure as well as daily living. I also explored the various diversions of the normative womanhood, often defined by one's level of education, birthplace, and economic status. The main focus of my study is to analyze the effect of gender roles on the high number of cases of violence against women that are reported in Gujarat, and explore the interaction of cultural tradition and gender-based violence.

Daron Mulligan

Geography & Urban Studies and Environmental Studies

I am studying abroad this spring semester in Granada, Spain with Arcadia University. I'm really excited to learn some Spanish and meet new people! I started a new job this semester with Campus Recreation as a lifeguard and swim lessons instructor. I have really enjoyed it so far and made new friends through the job. I finished an Americorps term of service this summer as a crew member for the Utah Conservation Corps. I spent 12 weeks working on natural habitat restoration and trail maintenance projects in the National Parks of Utah.

Hailey Brinnel

Jazz Education, Trombone Concentration

This summer, I immersed myself in the music and culture of New Orleans. I went down to the city and listened to authentic New Orleans musicians and interviewed them, asking them all "what is it that sets the New Orleans music scene apart from every other city's scene?" I spent the rest of the summer playing, arranging and composing music indicative of the New Orleans sound. I didn't just read about the music of New Orleans, I lived it for 3 months.

John Hardue

Psychology

I just finished a southbound through hike of the Appalachian Trail, from Maine to Georgia. The hike took just under five months, starting in late June and finishing just before Thanksgiving. I took a leave of

absence for the fall semester and used one of my summer stipends, so thanks for helping to make that journey happen Temple!

Jacob Himes

Italian

For my research project I interviewed successful individuals with large platforms on social media about how they utilized multiple sources of social media to expand their platform. For the project, I moved to LA and utilized my contacts among the YouTube community to discern how each utilized multiple sources of social media. My research was broken down into how each media developer used these sights and how they used multiple sources in conjunction to increase their exposure and platform across all sites.

Sarah Intoccia

Marketing

I traveled to New Zealand and Australia with the School for Field Studies where I focused on environmental studies and rainforest management. During the trip, we learned about different plant and animal species in both countries as well as how individuals and the government protect these species and their habitats. We spent time planting trees at forest conservation areas and immersing ourselves in indigenous culture. Through my abroad experience I have learned important ways to conserve endangered species and I can use that knowledge to enhance and educate companies in the future.

Kyle Blessing

Composition

During my time in Montreal, I feel that I crafted a unique compositional voice for myself, something I have been striving towards for some time now. It began with my study of the instrument known as the Ondes Martenot with Dr. Estelle Lemire of the Montreal Conservatory. Learning the instrument came relatively easy, as it seemed to me very similar to playing the Viola, my first instrument. It blew me away how expressive I could be through the Ondes, and I quickly fell in love with it. While in Montreal, I also studied composition with Dr. Hasegawa of McGill University, and this combined with my lessons on the Ondes proved truly transformative for me. The pieces I wrote during this time finally expressed the lyrical and timbral freedom I had been searching for but could never find, making this experience much more valuable than I could have ever imagined, as it acutely focused my studies as a composer and performer. *Kyle's Advice:* Find someone who is passionate about what they do, and the experience will always be a fulfilling one in some regard.

Maggie Andresen

Journalism

My academic experience abroad was an invaluable asset to my education at Temple. As a journalism student, it is my aim to use visual media in documentary work abroad. Through video and photo essays, a viewer can more intimately understand the lives of those around the world who live very different lives from themselves. I was able to complete a short documentary on AIDS orphans during my study in Johannesburg and Cape Town; exploring such a sensitive topic allowed me to establish real trust with my subjects and gave me the honor of hearing their stories. My experience in South Africa has given me an international résumé - one that I hope to further enhance and use to work abroad in the future. *Maggie's Advice:* There are so many scholarship opportunities, take them! I ended up paying a little under $300 for a trip that costs around $9000.

Eli LaBan

Media Studies and Production

I studied away in the unique country of South Africa where I filmed a documentary about the music scene there. I was able to experience many sides of South Africa, from the wealthy, walled-in suburbs to the endless shanty towns in the townships. Shooting for projects like this one in foreign countries is a dream job of mine, and I am lucky to have been able to experience what that would be like while I am still in college. I learned so much about shooting and producing in chaotic and tense situations that I will continue to build on as I work on more projects in the future. I am currently editing the footage that I shot abroad, which will be released as a short documentary entitled "Breaking the Wall: The Next Generation of South African Sound" that will explore how the music scene reflects the social climate of post-apartheid South Africa.

Internships

Emilie Doyle

Electrical Engineering

This past summer I had a software development internship with corporate Walmart in Bentonville, Arkansas. I designed a user interface for a new tool being developed to manage data and information for all of the cash registers that Walmart has worldwide. This year I am working on my senior design project. The project is to create an autonomous boat that can complete several tasks including object detection and avoidance, location determination, unmanned aerial vehicle integration and self docking. We will be competing in an international competition July 2016 in Virginia. After graduation I will be working full time for Lockheed-Martin, where I will be working on a satellite and wireless communication project for the Space Systems Division.

Sarah Godwin

Global Studies/Spanish

For nine weeks, I worked as an intern at the Alzheimer's Association Houston & Southeast Texas Chapter. During my internship, I learned about marketing and developed my communication skills by writing blog entries discussing activities, current research, and news regarding Alzheimer's disease, and by working with one other intern to interview participants, update information, and redesign the layout for the Early-Stage Programs portion of the chapter's website. I collaborated with two other interns to plan and facilitate presentations and activities pertaining to brain health at community centers for seniors in the Greater Houston area. *Sarah's Advice:* I recommend reaching out to all organizations that interest you, even if they do not advertise internships on their websites.

Ashley Stettler

Advertising

This semester I was accepted as a marketing intern for honeygrow, a fast-casual, farm to fork dining experience in Philadelphia. The company's story is quite incredible, especially because the founder earned his MBA at Temple -- Go Owls! During the course of the internship, I assisted in multiple store openings as well as helping with in-office marketing work. Gaining experience on sight and in the office helped me understand both sides of a business. Although the internship spans only one semester, they offered for me to extend my internship this summer. Of course I readily accepted!

Megan Byrne

Chemistry

This summer, I worked alongside the head pharmacist at Waldbaum's, Paul Buonaguro. I assisted the pharmacist by filling prescriptions, consulting customers, preparing orders for pick-up, and answering/making phone calls to and from doctors and patients. During the day, he would show me and inform me about all the procedures, checks, and duties that he has to fulfill. Additionally, I had daily research assignments, whether it be about specific drugs, drug classes, pharmacology, interactions, or how to approach a common health problem. All in all, working at the pharmacy reinforced my future goals of becoming a pharmacist.

Evan Hammond

Finance

I am (sadly) in my final year with Temple and the Honors Program. I interned this past summer with Vanguard in Valley Forge, PA. It was a great experience and I was fortunate enough to be offered and accept a full time position. I will be starting the Vanguard Accelerated Development Program in July of 2016. I was also named Captain of the Temple Men's Crew team for my senior season and have experienced a lot of success, set a few records for my team, as well as been recommended by my coaches to have the opportunity to continue rowing after college with the US National Team.

Natasha Tax

Political Science and Spanish

I'm interning at Family Research Council in Washington DC as part of Temple's Washington Semester. At my internship, I'm the Political Action Committee and Public Policy intern, and I focus heavily on the pro-life movement and religious freedom. I'm also writing part-time blog contributions for International Youth Coalition, for which I'll participate in the UN Commission on the Status of Women in the spring.

Naomi Nguyen

Marketing

I was the Marketing Intern for Eagle Property Solutions LLC. Under this role, I was responsible for creating marketing strategies for residential real estate in the Greater Philadelphia Area, analyzing local markets to determine how to best engage client interests, assisting with showings of properties and building rapport with prospective clients, and increasing awareness and interest of properties through promotional material. This experience was significant in allowing me to explore and gain a better understanding of both marketing and the real estate industry.

Elizabeth Detwiler

Early Childhood Education

Interning at Sebastian Riding Associates was an amazing experience that enabled me to combine my passion for teaching and working with horses. As my internship progressed, I was able to serve as the instructor for multiple students, reaffirming my love and gift for teaching. Working at the barn daily showed me the power that therapeutic riding has to change an individual's life and empower them.The strategies that I learned and used at the barn to teach and interact with the students will enhance my ability to teach and connect with all types of students in the classroom in the future.

Elizabeth's Advice: Don't be afraid to think out of the box and find unique ways to combine your major with your other passions or hobbies!

Alexandra Walker

Political Science

My internship this summer was at the American Civil Liberties Union of the Nation's Capitol. The mission of this non-profit organization is to protect the liberties outlined in the Bill of Rights of the people in the District of Columbia. I worked under the Policy and Communications Director and assisted with identifying policy change opportunities, participated in researching and writing about policy issues, and identifying and mobilizing coalition partners. I also provided assistance with the development and execution of a communications and media relations strategy that utilizes both traditional and new media. The areas of policy we focused on mostly regarded criminal justice and racial inequality. One final thing about my time at the ACLU was the amazing experience I had where I sat in on one of the Supreme Court decision days.

Jessica Rehrig

Sociology concentration in health

This summer, I served as an international peace education leader in Sweden, and will be continuing my travels abroad this spring when I study at Temple's Rome campus. Currently, I have a great job working in Center City, Philadelphia, where I am a Compliance Specialist for an agency staffing healthcare professionals across the country. I also became the undergraduate research assistant for the Da Vinci Robotic Research team at Temple University Medical School this semester, and we're hoping to be published within the next year! Our objective is to improve upon techniques to train surgeons on the newest technology in the operating room, specifically the Da Vinci Robot. I started my own website dedicated to article posts and art about contemporary issues in society as a creative outlet, and last but not least, applied to medical school and have a few interviews coming up in the month!

Joshua Engel

Mathematics & Computer Science with Teaching

My internship this summer was at the Long Island Children's Museum assisting with "Juntos al Kinder" and "Ansamn Ansamn pou Kindergarten." This is a kindergarten readiness program for children whose parents are immigrants. The children attend class 5 days a week (just like they will in Kindergarten) and learn the alphabet, numbers, animals, colors, and shapes, all while exploring the museum's interactive exhibits before the public enters. The parents attend a workshop one day a week to help them understand the American culture and education system so they can better advocate for their children throughout their schooling. The internship gave me firsthand experience in curriculum development, teaching English Language Learners, classroom management and the importance of preparation.

Carly Freeth

Early Childhood Education

A highlight of my college experience is the work I completed at Camp Geronimo, a day camp for children with disabilities located on Spring Brook Farm in West Chester, Pa. The children were ages 5-14 and most of them are on the Autism Spectrum. Each week I was assigned a different child to work with. I had to guide them through the activities, help them at snack and lunch time, keep them safe, and make sure they were having a blast! All of my campers were on the Autism Spectrum and many of them were non-verbal but each had a unique personality with different likes/dislikes and needs. I learned so much about children on the Autism Spectrum, how to communicate with non-verbal children, and how to think on my feet and be flexible.

Activities Within The Arts

Music

Ryan Noss

Jazz Education

I used my stipend to conduct research on the way that the Stan Kenton Band influenced the history of the bass trombone in jazz. I travelled to the University of North Texas in Denton, TX in order to access their Kenton score library. This meant that I could analyze arranging techniques and compare compositional styles that I was both reading and writing about for myself, and draw my own meaningful conclusions. I am now better equipped to both perform in my ensembles and educate others, which are the two major focuses of my program.

David D'Arville

Jazz Performance

My research focused on two styles of John Coltrane's music. I studied works that make use of a harmonic device Coltrane pioneered, known as "Coltrane changes", as well as many of Coltrane's rubato ballads. I created charts displaying common tones between the changing key centers in order to gain an understanding of how to solo melodically (opposed to harmonically) through Coltrane changes. In studying Coltrane's rubato ballads, I found how simple music can be just as effective and powerful as complex music. Music functioning to create a certain mood was something I had given little thought before this project, and I composed a rubato ballad of my own with this concept in mind. As writing about music can only explain so much, I plan on presenting my work in the form of a recital.

Julianna Laseter

Voice Performance

I worked as an intern at the Community Arts Association in Newton County, Inc., a 501(c)(3) non-profit in Covington, Georgia. This organization focuses primarily on providing high-quality fine arts education in Newton County and its surrounding areas. My position was Assistant Director of Summer Educational Programming. I helped organize and manage the Arts Association's summer camps- Creative Kids Camp, Acting Camp, Musical Theater Camp, and a variety of dance camps. I also wrote grants and helped secure donors for the 2015-2016 season, and spoke on behalf of the Arts Association for the Newton County Board of Commissioners to approve funding for a civic center; the funding was approved. I honed my writing skills, my leadership abilities, my public speaking skills, and made myself a more well-rounded job candidate for non-performance jobs.

Deanna Mead

Instrumental Performance, viola

I spent two weeks at the New York Summer Music Festival at SUNY Oneonta gaining performance experience. I was placed into a symphony orchestra as well as smaller chamber orchestra, string quartet, choir, and viola technique class. I also had the opportunity to perform in a master class led by world-renowned violist Brett Deubner. NYSMF helped me to realize that performing is really what I want to do after graduation, and reassured me that even though the job market for musical performers (especially in the classical genre of music) is not growing, that it does not mean that jobs are impossible to get, especially if you make yourself more marketable as a musician. *Deanna's Advice:* Research summer

music festivals because they are an amazing way to get a lot of performance experience in a short amount of time.

Bria Blackshear

Instrumental Performance (Viola)

As a participant in the Nuevo Mundo Festival and Academy in Aruba, I was able to study the art of chamber music with world-renowned faculty. I had the pleasure of performing the String Sextet in B-flat major by Johannes Brahms. Collaborating with five other musicians to produce a single outcome was very beneficial to my ongoing studies as a violist. Following this experience, I embarked on an internship with professional violist Adriana Linares. My biggest job was serving as librarian for the organization's music festival. I am grateful that I was able to experience two sides of the music world: the performance aspect and the administrative aspect.

Theater

Cindy Paul

Dance/Geography and Urban Studies

During my Education Internship with Arden Theatre Company, I mostly assisted Teaching Artists in Dance and Movement classes with children ages 6-11, completed some administrative work for the Education Department, and helped to develop the curriculum for the one-week costume design camp. In addition to this experience, I was a Research Assistant with Professor Sherril Dodds where I completed online research about dance competitions.

Emily Young

Theater

I spent about ten weeks working on the score of a new musical about life in the Appalachian Mountains. This has involved research on the time period (Civil War era, 1864), the cultural and economic history of the setting (the Eastern edge of West Virginia) and time period musical styles, and work on lyrics and music. With the current cultural climate in the United States surrounding "Southern Pride," Confederate flag waving, and a lingering rift between North and South, there has never been a better time to look back to 1864, when many people believed that the Union would never recover, and wonder if they were right.

James Reilly

Theatre (Acting Concentration) and English

I researched acting theory, technique, and industry at Michael Howard Studios' Summer Conservatory. Michael Howard Studios offers professional training for actors looking to advance their careers, pursue graduate study, or supplement their training. After completing the program, I analyzed the material with assistance from my teachers and created a synthesis paper. This paper functioned as a micro-thesis and allowed me to process the large amount of training I received this summer. At the end of the program, I was invited to attend the Studio's One-Year Conservatory program, a program that rivals many of the top graduate schools in the nation.

Other Artistic Experiences

Gizelle Edinger-Turoff

Undeclared Bachelor of Fine Arts

I used my stipend to work for sculptor Pepon Osorio on his project/installation sculpture at Tyler. The exhibit is about Fairhill, a school that recently closed down near Temple, and how that affected the community. Pepon used elements of sculpture and video to express this effect. My job encompassed a large range of activities, from painting walls and wallpapering to working with the students from Fairhill. I have learned so much from Pepon, from sculpting techniques to interacting with other artists, as well as learning about how to make a big exhibition like this work. *Gizelle's Advice:* Be receptive to the sessions your college has about job opportunities and internships.

Olivia Stifel

Undeclared- Tyler School of Art

The purpose of this project was to build a guide for creating artistic entrepreneurial businesses. By creating a business of my own, I was able to explore my personal creative inclinations while also learning how to effectively market myself and my product in retail. By having both a physical space in a local shop and an online shop within the artistic marketplace of Etsy, I could determine the best practice to create a business in both environments. During this process I created a website to use as a platform for both my research and my art. I also had the opportunity to meet with other artistic entrepreneurs, so I could report on my own findings as well as the findings of more tenured individuals. As it stands I have created a guide to help artists taking their first steps into creating the business of their dreams. *Olivia's Advice:* Approach faculty with an idea and a plan of action for a project and they will help you find a way to do it.

Abigail Moore

Film

In my meta-analysis of the current trend towards dystopia in film and in print, I first traced the origins of dystopian societies in American media, reading George Orwell's 1984 and Aldous Huxley's A Brave New World. Then, I read Suzanne Collins' The Hunger Games trilogy. I screened the associated films before moving on and reading Veronica Roth's Divergent trilogy, which had two films released before the stipend period ended which I watched. The last book/movie combination I read and watched was Lois Lowry's The Giver. After finishing my research, I wrote a 25+ page paper describing my findings and /proposing a thesis that indicates why dystopia is seeing such a surge in popularity as of late. This project as a whole has built on the two creative writing classes I've already taken at Temple, and will prepare me for the screenwriting class I intend to take this semester. As a future creator of media, I want to be able to both invent original ideas and understand where current trends come from. I plan to submit my findings for the TURF-CreWS Symposium's consideration.