

# RISE NEWSLETTER

2014 - 2015



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# RISE NEWSLETTER

## Words from RISE Alumni

### Jessica Nance



Hi, my name is Jessica Nance. I graduated from the University of Delaware with a Bachelor's Degree in Computer Engineering. After graduation, I went on to obtain my Master's in Health Systems from the School of Industrial and Systems Engineering at the Georgia Institute of Technology.

After graduation from my Master's program, I started working with Accenture, which is a technology consulting firm. During almost five years at Accenture, I have worked with four different clients on nine different projects. I primarily work in the Healthcare industry, and use my engineering background to help my clients solve problems and meet business needs. I am currently working on a healthcare electronic medical record implementation project. On my previous projects, I have created staffing models, designed programs to support business objectives, conducted systems assessments, gathered system requirements, and conducted process analyses/improvements.

At UD, I was actively involved in RISE and I benefited from RISE in many ways. I could have never made it to graduate school and excelled as I have without the support from RISE. The lessons and skills that I learned from the RISE workshops helped me develop into a diligent student who worked "smarter not harder". I am so appreciative of the RISE Program because of all that I learned and how much I grew and developed as a member of the RISE Program.

### Frank Frisby



When I was in college as a Civil Engineering student, I was part of RISE. It felt like home; a community full of friends and colleagues helping each other grow. Also while in college, I worked for a structural engineering firm from freshman to senior year. I went on to obtain my Master's Degree in Advanced Infrastructure Systems at Carnegie Mellon University in Pittsburgh, PA. I wanted to integrate software, systems and computer science to the traditional engineering that I learned as an undergrad. Even then, I still thought back on how RISE nurtured my determination to innovate.

After my Master's, I started working for a geotechnical engineering firm in Pittsburgh where I worked on structural stability of Nuclear Power Plants. I came back to Delaware to marry my college friend. I took a job as an engineer working on systems in the environmental sector for the government. In 2012 I founded my own infrastructure company focusing on developing web application and software processes that build business logistics, operations, controls, and automation. RISE did not only provide me with a foundation, it also provided life-long friends where we challenge each other to keep moving forward in our professional careers. RISE made all the difference in where I am now.

# RISE NEWSLETTER

## Words from RISE Alumni

### Lawrence Aiello



My name is Lawrence Aiello and I am a System Support Engineer at Syniverse Technologies. I received a Bachelor's Degree in Computer and Electrical Engineering from the University of Delaware in May 2011, and a Master's of Science in Computer Engineering in January 2014.

In my role, I work on a system that monitors cell phone subscriber data usage and notifies them of any data overages. I develop new features for the system, as well as maintain the current infrastructure and provide production support to our clients. Before this, I worked in the Pathways Program at the Department of Defense during my graduate studies, which supported my graduate work. After I left that job, I had a short stint working for a Navy subcontractor before I landed my current position at Syniverse.

The RISE Program assisted me by providing helpful seminars, meetings where I got to hang out with other engineering students who could empathize with my academic struggles, and of course the amazing pre-finals week party (I looked forward to those desserts!). I also greatly enjoyed the end-of-the-year RISE formal dinner, where I got to network with other engineers and develop crucial interpersonal skills. It's sometimes hard to relate to other students who may not have the curriculum you have, and RISE was able to provide that for me. If you are an engineering student and having a hard time, stay the course, it does get better!

### Jesse Whitley



I graduated from the University of Delaware (UD) in 2010 with a Bachelor's in Mechanical Engineering. During my time at UD I was privileged to be actively involved with the RISE program, the National Society of Black Engineers (NSBE), and ResLife.

Currently, I am a second year MBA candidate at Harvard Business School (HBS) studying general management. Prior to HBS I worked as a Process Safety Engineer at ExxonMobil (XOM) at their Downstream HQ located in Fairfax, VA. In my role at XOM I supported downstream manufacturing (Refining and Chemical Plants) in identifying process risk and developing appropriate mitigation actions.

My time at UD in the RISE Program was extremely rewarding and rich. RISE provided numerous resources that contributed to my success at UD and beyond. The engineering curriculum can be very tasking and the network of peers you develop within the program will be key in supporting you through it. These friendships will stick with you far past your time at the university and in the future will serve as groups to bounce ideas off of and talk through career issues.

The peer group along with the RISE mentorship and academic accountability programs sets you up to succeed. I would strongly encourage participants to get actively involved during the monthly workshops and various other professional skill-set building modules. Module takeaways can set you apart as an exceptional candidate in the eyes of companies and really push you to become the best student you can be.

My advice to all RISE participants is to continue to push yourself beyond your comfort zone and be sure to challenge each other on a daily basis.

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## Words from RISE Alumni

### Ariel Lester



My name is Ariel Lester and I graduated in 2011 with a Mechanical Engineering degree. After graduation, I joined the Global Engineering Services (GES) group at Merck & Co. as a two-year development employee. I worked on multimillion dollar projects as an estimator and design engineer (NJ), project engineer (Puerto Rico), and process engineer (VA). Upon completion, I became an Engineering Specialist responsible for the design, construction, and commissioning of large capital projects.

“Look to your right, look to your left. Two of the three of you won’t be here at graduation.” The RISE Program afforded me connections that made this phrase a myth. The study groups I formed during SEP and freshman year propelled me through the excruciating classes. RISE’s tutoring provision was an asset, which led me to become a paid tutor for underclassmen through this connection.

RISE not only assisted with academics, but also social connections. I was told, not asked, to come to a NSBE meeting while studying in the RISE Room guiding my decision to become secretary then chapter president. The workshops, introduction to Career Services, and exposure to numerous companies impacted me professionally. I deeply regret not taking the time to complete the scholarship and internship applications offered to participants. In summary, RISE has provided me with numerous connections with financial, social, academic, and professional impacts.

### Camillo Perez



I graduated from the University of Delaware (UD) in 2010 with a Bachelor’s in Electrical Engineering, and minors in Math and Bioelectrical Engineering. I was a Division I tennis player for UD, and an active member of RISE and undergraduate research programs.

Currently, I am planning to defend my Ph.D. at the University of Washington’s Bioengineering Program in Seattle at the end of the summer. I am part of the Center for Industrial and Medical ultrasound, which is an applied research institution that focuses on developing industrial and medical technology, including instruments, techniques, algorithms, ideas, and products that benefit our society. Every 6 months I attend conferences, give open talks to large audiences of my peers, and get to enjoy the experience of being surrounded by a very diverse and highly talented group of clinicians, biologists, physicists, and engineers.

I am grateful to the RISE Program because it opened the door to meeting other international friends who were struggling and going through a very similar situation, who had big goals, and who worked hard to get them accomplished. The STAFF at RISE quickly became part of my Delaware family; not only providing career advice, but also giving me personal life advice. The mentorship program and tutoring taught me the importance of sharing knowledge and teamwork. RISE is a family of hardworking people who will always be willing to help.

# RISE NEWSLETTER

## History of RISE

### The Rise of RISE

by Marcos Miranda

The RISE program has a rich history in the College of Engineering here at the University of Delaware. When RISE was first created in 1972 its original name was the Minority Engineering Program, (MEP), and signified a commitment by the University to encourage and facilitate the growth of minority students within the engineering program. The program grew in influence and size until the name was changed in 1985 to Resources to Insure Successful Engineers. The program has been fortunate to have several esteemed directors, several who have continued on with their careers at the University of Delaware. Each director has been able to raise the program to a new level of commitment and growth. RISE has moved forward, shifting its focus from serving minority students to working with all students as the program continues to grow and thrive. I was fortunate enough to sit down and speak with previous RISE Program directors and our current program director, Ms. Marianne Johnson.

Ms. Johnson became the current RISE Program Director in 2006 and has been with the program ever since. Ms. Johnson admits that when she became the Program Coordinator in 1995 she had some hesitation over guiding students in a subject matter where she had no academic experience. However, over time, she realized that the RISE Program was more about providing students with overall guidance and giving them the support that was necessary for their success. When I prompted Ms. Johnson about changes in the RISE Program that she had observed over the years, she was quick to point to something that surprisingly, hasn't changed. She complimented the numerous years of students who had participated in the RISE Program, saying that all students exhibited the same passion to succeed here within the College of Engineering. Each set of students demonstrated a unique commitment to the program and to one another, something that is invaluable for them to move forward in their education. This commitment to one another is something that has come to be a defining attribute of the RISE Program.

I was fortunate enough to sit down and speak with a former Program Director; Mr. Michael Vaughan, Associate Dean in the College of Engineering. Dean Vaughan was the Program Director of the RISE Program from 1992 to 2006. He entered into the position of director at a crucial time for the program. Concern had arisen over the sustainability of the program and it was apparent that the program was undergoing a transition period. Dean Vaughan worked hard to address these concerns, primarily those voiced by the students. Under his guidance the program saw a growth in student engagement, and a large diversification of the program participants. Dean Vaughan was instrumental in guiding the RISE Program during this time of change. When I prompted Dean Vaughan on where he sees the program going, he didn't hesitate with his answer. Dean Vaughan shared with me his vision in which the RISE Program was able to grow into an influential service on campus, which would not only provide a welcoming environment for all students, but also provide them with the resources necessary to succeed. I believe that Dean Vaughan, Ms. Johnson and all RISE participants notice that RISE is more than a program focused on diversity and academics. RISE provides us with a strong sense of community and a supportive environment, full of inclusivity. Whatever the goal of the RISE program is, I can be certain that as it develops, it will continue to provide support and be a source of inclusion that hopefully, will one day be extended to all students on campus, not only limited to students within the College of Engineering.



# RISE NEWSLETTER

## Summer Experience

### Jessica Wong



This past summer, I had an internship at BrightFields, Inc. BrightFields, Inc is a Wilmington, DE based company with additional offices in Baltimore, MD and Philadelphia, PA. They provide environmental services such as remediation services, energy audits, and waste reduction services. I was an Environmental Analyst Intern and it was my first internship ever. I'm glad that I was able to work there because the people there were professional and helped me learn about what the workforce was like, since they knew that I was trying to learn more about the company and the work they do. I got to work on a project where I collected data about facilities (mostly gas stations) with methyl tertiary-butyl ether contamination. Methyl tertiary-butyl ether (MTBE) is a pollutant that travels very quickly through groundwater and it was my job to figure out which places had a significant amount of contamination and how far down into the ground it was. I did this project with the Delaware Department of Natural Resources and Environmental Control (DNREC). I also assisted two BrightFields Environmental Analysts by preparing air canisters and accompanying them to perform soil gas sampling. My last project was geo-referencing Sanborn Fire Insurance maps using ESRI ArcGIS so that the company could use them for reference. I had a great summer at BrightFields and learned a lot about environmental services. I hope that I'll be able to do more consulting work in the future, because I enjoyed working with the people and liked being mentored by all of the employees.

### Brian Reyes



When fall classes resume, one question always seems to be asked: "how was your summer?" This year I was able to proudly say this was my most memorable summer to date. For the first six weeks of my summer break, I worked at Nestle Freehold, a beverage factory that produces coffee and tea for the world, as a Quality Assurance intern. I was given the task to continue scoping out how many valves were needed to have a secure separation between product and caustic, a very basic cleaning solution, as well as validate certain machines and processes. I was constantly working with different people, even those with an international background. People from Switzerland, Italy, Germany, and Mexico worked alongside me, while I helped start up the new jar filling line. Aside from the small projects I was given, I also learned more about the factory culture and daily routines by attending daily operational meetings and touring the plant to become more familiar with the coffee and tea processes. At the end of the day, I would come home to everyone sniffing my clothes which carried the addicting odor of coffee.

After I gave my final progress report presentation at Nestle, it was time for phase two of my summer to remember. My mother, youngest sister and I left the United States to visit our wonderful family in Chile; my other sister and my dad both joined us a few days after. The reason for our trip was to celebrate our grandparent's 50th wedding anniversary. It had been four years since we visited, and like the last time we went, there was a huge earthquake that struck the country a few months before we arrived. Coincidence? Anyways, the three of us were greeted by our grandparents, Tata and Abuelita, at the airport on a chilly—or dare I say "Chile"—night (since it is winter in the southern hemisphere) and rode two hours south from the capital city to their house. That night, my family of five was able to enjoy the celebration with family and friends we never get to see, due to the fact that we live thousands of miles apart. It was a night filled with warmth, love, and passion (on the dance floor, of course) and I will surely be talking about it as long as I can remember. Unfortunately, time was not on our side because those six weeks felt like one. It was truly hard on August 24 to board the plane back, especially knowing that the day we arrived in the Garden State, I would start my junior year of college the following day. But deep down inside, I know I will go back soon to Chile.

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## Summer Experience

### Michael Letterio



This summer was perhaps one of the best I ever had. Before the summer started I had every intention of spending time at home for the first time since I moved to Delaware freshman year, however, that plan changed after I was denied a position at Brookhaven National Lab. Although I was near devastated about this originally, I could not have been happier with the rest of the summer. I ended up continuing my research on fuel cells in the Chemical Engineering department with Dr. Yan, I visited the Jersey Shore for the first time, and was able to watch my favorite sporting event; the World Cup. We spent summer nights hanging out in the backyard, making weird contraptions, and in the morning, we went paintballing, rock climbing, or just adventuring through the woods. One weekend a friend of mine had proposed the idea of cliff jumping. It seemed like a great idea at the time, but when I got there I was terrified. It took a little while to gather the courage to get up and jump, but it was 100% worth it. A couple of weeks later we decided to take the next step and jump out of a plane. For anyone who hasn't skydived, it is without a doubt something that needs to be experienced before you die. I will admit that it was terrifying but it's that shock that reminds me I'm alive when I get away from all the work. When I wasn't jumping off cliffs or out of planes, I was accomplishing a lot through work. Some of my research is to be published soon, which I could not be prouder of. I would not have traded this summer for the world even though I was originally devastated that I wouldn't be able to spend time with my friends and family. It was just a matter of making the best out of every day, no matter where I was.

### Tobias Mazal



My last summer before commencing college was one filled with new experiences and great memories as I fortunately had the opportunity to vacation abroad as well as enroll in my first ever college classes.

A few weeks after graduating high school, I visited the country of Morocco for a week, travelling with just my father. We were with a tour group of around ten people, all taking buses and journeying the countryside together—lead by our sagacious guide named Ham Dan. We toured the cities of Rabat, Marrakech, Casablanca, and Fes, tasting various new cuisines, interacting with people from exotic backgrounds, and in general, encountering wholly new experiences. One of the most incredible sights of the trip was from visiting the Hassan II Mosque, the largest mosque in Africa, an absolutely immense edifice that could house approximately 25,000 people within it. We also had the chance to visit Volubilis, a well-preserved site of Roman ruins located near the western coast, which was very impressive, although we could see the marks of devastation from prior earthquakes and looters. However, my favorite experience, perhaps apart from riding camels, must have been visiting Fes el Bali, the Medina of Fes, which is essentially a completely walled-in city located within the city of Fes itself. Entering the Medina, we found ourselves in a society isolated from the outside world, where vehicles were prohibited, and where people spent their entire lives without leaving the city's walls. Although it was crowded, and we had to trek through narrow slits between buildings that housed a population of around 150,000, we were still able to appreciate the beauty of the vivacious marketplaces, quaint abodes, and colorful leather tanneries spread throughout the unfamiliar labyrinth. Looking back, it was an experience I won't soon forget.

After around a month of relaxing, I found myself suddenly unpacking my belongings in a college dorm. Although it was only early July, I was moving into UD's north campus to participate in the Summer Enrichment Program. I was fortunate enough to take part in this immersive five week program where I could effectively get a head start in college—taking a few classes and seeing what living in a dorm was like in order to prepare for my upcoming freshman year. I opted to take two Philosophy classes, Introduction to Philosophy and World Religions, initially in the hopes to simply get some breadth requirements out of the way. However, I thoroughly enjoyed taking them, and by the end, I strongly contemplated pursuing a minor in philosophy simply due to my experiences in these classes alone. I additionally was able to learn about multiple opportunities on campus, such as becoming part of the RISE Program, a program where I could branch out and interact with people with similar interests as my own. Ultimately, by the end of SEP, I was able to accomplish everything I had hoped for. I made new friendships with some great people, I experienced what it was like to live independently within a college dorm, and I learned how to adjust to my new surroundings to ensure success within my first year as an engineering student.

# RISE NEWSLETTER

## RISE Student Activities





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## RISE Student Activities



# RISE Newsletter

## Student Stories

### Journey through the Engineering Program at the University of Delaware



by Alex Lauderback

As graduation approaches, a multitude of feelings surround my classmates and me. We feel excited and anxious about the new experiences and challenges that wait for us in an inevitably uncertain future. There is also an evocation of nostalgia and reflection. My personal reflection begins when I arrived on campus full of excitement and energy; seeking new opportunities to learn and challenge myself. I chose Chemical Engineering because I was not yet sure what path I wanted to take, and the curriculum promised me training in critical problem solving and a variety of postgraduate opportunities. Due to the rigor of the curriculum, I was forced to quickly develop efficient time management skills and work ethic, which will continue to prove valuable throughout my career. Early on, I also developed an interest and passion in working towards understanding and helping solve the energy issues facing our country. This would ultimately steer my academic and early professional career choices.

The Chemical Engineering curriculum provides for a significant number of technical elective courses. These options allow students the freedom to dedicate their free course space to a particular interest or minor. I chose to dedicate my electives to the Sustainable Energy Technology minor. I believe that the minor does a great job of presenting all sides of the energy prob-

lem by requiring both energy engineering courses coupled with geography and energy policy courses. Any energy solution must be a joint effort between engineering, industry, and policy makers. After deciding the direction of my academic career, I wanted to expand on it by applying it to either research or industry. At this point, I began talking with ChemE faculty in search of energy related research positions. At the same time, I began applying to summer internship opportunities with energy companies such as Shell, ExxonMobil, Exelon, and PPL. Throughout the application process, I learned valuable lessons about interviewing, resume writing, and networking. However, the most important lesson I learned was how to accept rejection. I had been rejected by all the positions that I had applied and interviewed for. I also learned that when an opportunity arises, you must take it, even though it may not be exactly what you thought you wanted.

I was approached by Axalta Coating Systems with an opportunity in their Sourcing and Procurement department. Although I knew absolutely nothing about raw material sourcing as a sophomore engineering student, I decided to take the position and give it my best effort. Throughout that summer, I gained professional experience, invaluable networking connections and references, and a critical understanding of the interface between engineering and business. That opportunity opened more doors for me as I worked for Axalta again the next summer in Coatings Technology R&D. These experiences were critical to my professional development, my commitment to pursue a career in industry, and my eventual success in finding postgraduate employment.

In addition to the strong curriculum and in-

dustrial opportunities, my engineering experience at UD has provided me incredible opportunities to learn outside the classroom and even outside the country. I was fortunate enough to be able to travel to Malawi in southern Africa with Engineers Without Borders to assess a rural, impoverished community for implementation of a sustainable drinking water system. I was able to work with a team to use our engineering skills to work towards a solution to benefit people desperately in need, while trying to understand life from a perspective vastly different than my own. I also had the opportunity to experience Chemical Engineering from half-way around the world while studying abroad at the University of Melbourne in Australia. I was able to work with Australian students and faculty and identify both the similarities and differences between engineering in the two different cultures.

My experience at the University of Delaware has given me countless valuable skills and intangibles including confidence, initiative, and a thirst to solve problems. It has helped me start my career in the energy industry, as I will be joining ExxonMobil in Houston, TX after graduation. However, my story is only just one of many successes. UD Engineering has given my peers the same skills, motivation and opportunities to make their impact in both the industrial and academic world. Therefore, I advise all of those fortunate enough to call themselves a Delaware Engineer to take an active role in shaping their future. I urge them to take initiative to seek research and internship opportunities, take challenging courses to find their passion, and to find what truly motivates them. The University of Delaware has launched me into the next phase of my life with the knowledge, tools, and attitude to succeed.

# RISE NEWSLETTER

## Student Organizations



NSBE (National Society of Black Engineers) has been extremely active throughout the spring semester this year. The organization has been involved with various student groups on campus by promoting their events and sharing their skills of being leaders professionally. NSBE continues to live by their motto “to increase the number of culturally responsible Black Engineers who excel academically, succeed professionally, and positively impact the community.” NSBE does not only accept Black students or engineers as members, but all ethnicities and majors. This past February, members from the NSBE E-Board here at the University of Delaware went to the University of Pennsylvania for the NSBE Zone Summit event that takes place each semester. There, members were able to attend workshops and learn more about opportunities in engineering. In the month of March, the organization made goodie bags for children at Urban Promise, which helped children that are less fortunate have the essentials like food and clothing to use daily. During spring break, members traveled to Anaheim, California where they had the opportunity to attend career fairs, talk to employers and enjoy some fun in the sun. In April, NSBE is working on their annual fashion show that occurs at the University of Delaware. The purpose of the fashion show is to explain to the audience what is expected to be worn and not worn during interviews or career fairs. NSBE had a great year of events and success and will strive to continue for better success in the next academic year.



The Society of Asian Scientists and Engineers (SASE) has had a wonderful spring semester. They recently had a few milestones such as their first year as an RSO, along with Women’s History Month, Spirit Week, and in May where they celebrated Asian American and Pacific Islander Heritage Month. SASE is an organization that focuses on the professional development of members by holding company speaker events and workshops. SASE is not exclusive to only Asians and scientists/engineers; all ethnicities and majors are welcome. In February, SASE braved the snow and attended their Northeast Regional Conference held at Boston University. There they attended workshops in order to improve their networking and personal skills. In March, SASE hosted Arnold Wong, an Applications Engineer from DuPont who gave them tips for school and taught them about the DuPont company. In April, Doug Manley from SevOne gave a talk about small businesses and startups. SASE had a successful year and hopes that next year is even better.

The Society of Hispanic Professional Engineers’ (SHPE) mission from the beginning has been to provide a forum between undergraduate engineering majors, professional engineers, and engineering researchers while providing opportunities for professional development. The theme for this year has been collaboration and interdisciplinary collaboration. This has been clearly reflected in the partnerships that we have established and the events that have been held.



Keeping the roots of our chapter close to heart, our celebration of Hispanic Heritage month was highlighted by a panel of Hispanic professional engineers who gave us insights into major industry leaders such as DuPont and DelDot. These four engineers answered questions, gave us advice to advance in our future careers, and were more than happy to look at our members' resumes.

This school year we also collaborated with the Biomedical Engineering Society (BMES) and the Institute of Electrical and Electronics Engineers (IEEE). We co-sponsored an open Q and A with Professor Slater from the Biomedical Engineering department who offered great insight about graduate school. In collaboration with the IEEE chapter at UD, we co-sponsored information sessions about internships and opportunities in the military for engineers.

Recently we held elections. The new board is composed of a mixture of upperclassmen and underclassmen with underclassmen holding high leadership positions. Our hope is that the new board will bring a fresh perspective to make our chapter grow while having the support of more experienced board members.

Undoubtedly, this has been a great year for SHPE and we would like to thank the board, members, our adviser Dr. Lobo, and RISE for the support. We would also like to give a special thank you to everyone in the student activities office for their help in planning all our events. We look forward to another great year!

# RISE NEWSLETTER

## Undergraduate Research

### Emotion Induced Blindness – An Interdisciplinary Research

by Adam Engelson



When I entered college as an Electrical Engineering student, I thought that the only hands-on experiences I would receive at college would be building circuits and designing power grids. Now, as my junior year comes to a close, I realize that engineering majors are not limited to the scope of their concentration. With my degree, I wanted to explore electrophysiology and bioinformatics; a somewhat cross between Biomedical and Electrical Engineering. This semester I was looking to conduct research in these areas, but had trouble finding opportunities in my department. I took a chance and looked at the other disciplines to see if any of the research done in other departments interested me. I came across a project called “Emotion Induced Blindness” by Dr. James Hoffman of the Neuroscience Department here at the University of Delaware. The research project investigates why when people are shown violent or erotic images, they frequently fail to process what they see immediately afterwards. Using a computer, a stream of emotional, neutral, and target images are presented rapidly to a test subject. The proctor instructs the subject to indicate when they see the target image during the stream of images. What the research has found is that when the target image is presented within a small delay immediately following an emotional image, the subject almost always fails to acknowledge the target.

The recent focus of this research is mapping the neural pathways associated with this behavior, and identifying the mental bottlenecks that cause the phenomenon. This is accomplished using an electroencephalogram (EEG), which is an array of very sensitive electrodes placed on particular parts of the subject’s scalp. The electrodes measure action potentials of neuron firings, indicating mental activity in that area of the brain. When the technology is supplemented with software, signal analysis and data visualization is possible, providing an area of the research that needs a broad range of expertise. As an Electrical Engineering student conducting this research, I will be responsible for the signal analysis and applying the mathematical significance of the analysis to the psychological phenomena associated with the study.

I chose to participate in this research not only because it is a great signal analysis project, but also because it encourages me to combine my knowledge of signal processing to a neuroscience application, a field that I find very mysterious and interesting. At the conclusion of the research, I hope to increase my breadth of knowledge as an Electrical Engineering student interested in electrophysiology and bioinformatics.



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## Meet Fellow RISE Members

### **Ella Erdman, Junior** **Civil Engineering**

Ella transferred to the University of Delaware from Delaware County Community College in Media, PA. She has just recently joined the RISE Program last semester after having been introduced by fellow RISE participant and Civil Engineering major, Taylor Jacobs. Ella loves the sense of community that she feels as a participant in RISE and enjoys meeting other engineering students who can help her to choose which classes she should take. Ella likes the fact that Ms. Johnson is here for us and wants to provide us with the resources that will allow us to be successful and be able to graduate. She also said that RISE provides an opportunity to get more involved on campus. Upon joining RISE, Ella had felt a sense of relief knowing that there were other individuals who were going through the same rigorous course work and same struggles. She finds that it is nice to have other people who can understand and provide support, something many of us agree with.

### **Joe Jefferson, Freshman** **Civil Engineering**

Joe participated in the RISE/Summer Enrichment Program, taking English and math classes. He found that the program was a lot of fun and definitely prepared him for the fall semester. Joe was able to find out various resources on campus and who to get involved with and talk to. He said that judging from his summer experience he knew that the semester would be rough but that it was possible to keep going and get through it. Joe finds Ms. Johnson nice, honest and open. Joe said that Mohamed, the RISE Graduate Counselor, was "current" having a good understanding of the students and very open. Joe has only had a positive experience with RISE so far and has found all of the programs helpful and

informative. Joe shared his overall thoughts on the RISE Program saying, "RISE helps to prepare students for life after college, something that no one else... well no one else seems to really do."

### **Chris Youngquist, Junior** **Environmental Engineering**

Chris received a letter, upon accepting the offer to attend the University of Delaware, from the RISE Program, welcoming and introducing him to the University and the program. Not really knowing what RISE was, he joined eager to learn more. His first time participating in a RISE event was during an information session with Ms. Johnson and other new RISE Program participants. It was here he made his first friend in the program and since then he has made many more. Chris's most memorable experience with RISE came his freshman year as well at the Multi-Ethnic Career Conference. Here he was given an introduction to the professional world after college and of course he was able to make new friends. Though he hasn't used the tutoring service, Chris knows it's comforting to know it is available to students. Seeing as he "loves friendship" Chris really does enjoy being able to meet new people through the RISE Program and continues to do so.

### **Anna Pimenta, Junior** **Environmental Engineering**

Anna began her participation in RISE by receiving a letter in the mail inviting her to join the RISE Program. Upon joining she attended the first monthly workshop. Initially there were a lot of people attending which she found to be a bit overwhelming. However, when the workshop broke into major groups to introduce themselves and discuss varying topics, she liked that she was able to meet others within her major. Anna thoroughly enjoyed the end of the year RISE banquet, especially the food and the RISE band. With finals approaching she always finds

the RISE program motivating and helpful in getting her to focus on applying the study tricks and tips that are always discussed within the program.

### **Taylor Jacobs, Sophomore** **Mechanical Engineering**

This is Taylor's second semester in RISE. Her first experience in RISE was attending one of the group sessions. It was right before the Fall Career Fair and she really found it helpful to hear about the different companies that were going to be there and what to wear and what not to wear. Her most memorable experience in RISE so far is the Multi-Ethnic Career Fair. Taylor was able to learn a lot and enjoyed seeing everyone dressed up and talking to employers. She thoroughly enjoyed the guest speaker, saying that he "did a great job." Taylor has benefited from RISE through the opportunities to meet different people within her major, meet alumni, and it has provided her with a number of resources and she is thoroughly excited because she hasn't even spent a whole year in RISE yet. "I like the RISE community as a whole." Taylor enjoys the group sessions to check in with different people and have a break from studying.



# **RISE Newsletter**

## **Student Stories**

### **Life Changing Blessing**

by Shally Hernandez

On May 18 2014, my life changed completely. It was the first time I looked at his face, and at that moment everything else vanished and the only one that matter was him. Without noticing tears began to fall down my cheeks because of all the joy and love, that I could not even control myself. For the first time I was experiencing a new kind of love, the one you know it's forever because of its strength. It was an amazing feeling having him in my arms after waiting for him impatiently for almost 10 months. The most remarkable thing was that he looked so much like me when I was a baby. Those were the very first moment I spent with my baby boy. His name is Joseph and he is the biggest blessing in my life. After a couple of minutes with him I began to be afraid. Fear began to invade me because I was not sure if I was going to be a good mother. I was worried about not being able to keep up with my education now that I was a mom. All those worries went away when I realized that now I had another incentive to succeed. My little prince was all the strength and motivation I needed to continue. From that moment on, my baby boy has been my biggest motivation and every time I feel like I cannot do it anymore I just recharge with one of his bear hugs and then I am ready to go.

### **RISE-ing to the Opportunity**

by Kemba Hall

As a member of the National Society of Black Engineers, this Spring Break I got the opportunity to travel to Anaheim, California for the National Society of Black Engineers Convention. As a freshman in college, I did not anticipate traveling across the country any-time soon and having an experience that many can only dream of. I was exposed to a variety of companies and networked with a lot of their representatives. I learned about the National Society of Black Engineers on both a regional and national level. I got to hear encouraging speeches about the future of minority engineers and the progress that NSBE has made. "NSBE, this next year will be a transformational year en route to 2025 and graduating 10,000 black, young engineers," said Neville Green, the NSBE current national secretary. It was a great chance to meet other students from different universities all over the country and network with them as well. Seeing other students working to achieve the same goal gave the feeling that we were all in this together and that all of our futures' are very bright.

A part of this convention gave students the freedom to explore different internships and job opportunities through the 3-day Career Fair. A few students were hired on the spot or offered a follow-up interview. Some companies also offered NSBE students the chance to win prizes or scholarships for school. On the last day of the Career Fair I met with a representative from Microsoft and spoke to him about my major and my interest in his company. After reviewing my resume he offered me the chance to apply for a scholarship. However, the deadline was in ten minutes. The scholarship of \$1,000 would be awarded to five students who best explained why they should be awarded the scholarship. I was fortunate enough to be one of those five students! As a result of attending the National Society of Black Engineers Convention, I got a well-rounded experience and met amazing people who I hope to see again at future annual convention.



# RISE Newsletter

## Student Stories

### Some of the Most Stressful Times, but Some of the Most Rewarding

by Matt Elizardo

Going into an engineering program, you always hear as a freshman and sophomore that junior year is the toughest, which is true. Junior year is intentionally made difficult in order to prepare us for the future challenges we will face as engineers. When we graduate we have to be capable of handling a diverse number of situations. We only have a short time to prepare and there really is no other way to do this besides having the dreaded junior year schedule. We have to go through the freshman and sophomore classes to prep us for the heavy lifting required by our core classes in our junior year; classes that teach us the principal concepts of how to approach the numerous problems we will have in our engineering careers.

As I go through the grind of being an engineering student, there are times when I question how much of the material I am learning will I actually use. Then some small, every-day problem would come up and suddenly I could see how to apply the things I learned. As engineering students we don't just learn equations and facts just to impress our non-engineering friends when we have spare time to hang out. We learn to see the world in a way that is different than how others perceive it. We spend those long nights working not because we enjoy being tired, but because we want to see our ideas become reality. Some of my favorite moments as an engineering student were not when I was doing problems but rather when I was in the design studio with friends, bouncing ideas for cool projects off each

other, or when building something just because it would make my life easier.

For those who are just starting their careers as engineering students, you will find that the people in your major will become some of your closest friends. They will be there with you through the late nights, the insane exams and everything in between. Going through junior year I know that the friends I have made will be life-long friends and that we all have had our trials as engineering students. However, when we finish our time here as engineering students and enter the real world to go our separate ways, we will still have great friends, great stories, and the ability to face any challenge the world throws at us.

### All You Have to do is Ask

by Brian Reyes

My story begins during the summer of 2014. While most UD students were relaxing at the beach, I was in Chile's winter visiting family. One morning, I walked to the food company, Invertec Foods, down the road from my grandparent's house, and struck up a conversation with the security guards at the gate. I had to explain to them that I was a student from the United States and I was looking for an internship. Because of my previous experience with Nestle, one of the guards gave me the contact information of the Hygiene Manager of the plant.

Being in another country for an internship did not scare me. On the contrary, I felt that it would be a great opportunity to add something that stands out in my resume. Consequently, I emailed the manager and she responded the following morning to set up an interview during that same week. After the

interview, we left on a good note and I waited to hear back to know whether or not I would be returning to Chile in January.

Moving forward a few months, I still did not receive a confirmation email during the month of November from the Hygiene Manager to know if the company had plans for me during Chile's summer. Worried, I sent a follow-up email only to learn that I gained an internship for the month of January. Soon after, I bought my plane ticket and I waited in excitement to celebrate after finals.

I started the new year by flying to Chile to begin working the following Monday. It was the first time I was flying alone to Chile; embarking on my adult adventure abroad. On the first day of work, I was taught about the beverage, frozen, and dry processes on the site. My job focused on the optimization of the Clean In Place system in the beverage department.

I especially enjoyed my time with the company. I experienced a different work culture, acted as a supervisor, tried new juices such as asparagus and kiwi, and was exposed to many different processes that the company uses for its fruits and vegetables. Probably the most important part of my trip was that I got to spend six weeks with my grandparents and hang out with a few family members that I never get to see while living in the United States. This truly was my favorite winter (summer) break that I have had in a long time.



# RISE NEWSLETTER

## Student Interviews

### Ana Haddad

**Q: How was your first semester of college?**

A: Good! It was a nice transition from high school and I found that even with Chemical Engineering as a major, I can manage my time efficiently to stay on top of things and have been able to meet a lot of new people.

**Q: What campus activities are you involved with?**

A: I'm a Freshman Fellow for the Honors Program, and I was involved with RAILE this year. Next year, I'm also going to be an RA at Independence!

**Q: What inspired you to focus on engineering as a major?**

A: I actually had a really good engineering teacher throughout high school that worked a lot with me after school, especially when we did senior design, and motivated me to follow engineering.

**Q: How do you feel about the engineering major curriculum thus far? Is it like you expected?**

A: The curriculum has been alright so far, but I feel it's definitely going to ramp up over the next few years.

**Q: What advice would you give to someone going into their first semester?**

A: I would advise people to remain organized and manage their time well—don't procrastinate! I also think it's important for people going into college to be open to meeting new people and get involved with activities on campus.

**Q: How did you become a part of RISE and how has it influenced your first semester?**

A: I've been with RISE ever since they invited me at the start of fall semester. It has allowed me to stay informed of good opportunities and, additionally, helped me to meet engineering students from different grades and majors to network.

### Jalisa Delauney

**Q: Why did you choose UD?**

A: I chose to attend the University of Delaware because of the reputation that the Chemical Engineering department has. In addition to this the vibe of the campus felt right and the people were all warm and friendly when I visited.

**Q: What is your favorite part about UD?**

A: My favorite part of UD are the experiences that are

available to students. From motivation lectures from people such as John Quinones and professional development conferences hosted by companies such as JP Morgan Chase; UD offers opportunities to enrich students to the fullest extent.

**Q: Why/How did you choose your major?**

A: After always having a passion for the law and being intrigued by the sciences I decided that I wanted to go into a career of patent law. I spoke to representatives from large corporations that were affiliated with the cosmetic and petroleum industry and was told that the best way to get into my desired field is to study Chemical Engineering because it is the only engineering discipline that incorporates course study from all of the engineering disciplines.

**Q: How have you changed over your time at UD?**

A: I am a lot more patient and understanding since I have come to UD; post high school is about maturing and learning to deal with people from all backgrounds.

**Q: What is one thing that you would tell someone who is considering engineering as a major?**

A: I would advise someone in engineering to take as many AP courses as possible. With a strong foundation in the concepts necessary for the basis of engineering it will be easier to expand upon those concepts in college.

**Q: What do you enjoy most about being an engineering student?**

A: Engineering gives me a mental challenge while providing me with knowledge that I would not be able to gain from any other course of study.

**Q: Once you earn your degree, what goals do you plan to achieve?**

A: Once I earn my engineering degree I plan to attend law school and use the basis of my undergraduate studies to pass the bar. After passing the bar I would like to represent either a cosmetology or petroleum firm and ensure that they are producing safe products while representing the patent department.

**Q: How did you find out about the RISE Program?**

A: I found out about the RISE program through an invitation to attend UD early and earn credits as a student in the Summer Enrichment Program.

**Q: Tell us about your experience with the RISE Program.**

A: My experience in the RISE program has been beneficial. It is nice to know that there is a community of people with similar interests and backgrounds in engineering to communicate and study with.

**Q: What campus activities do you participate in for**

**fun? Give a brief description of the activity.**

A: In my spare time I am a participant in the Yoga Club, the Each One Reach One Mentorship Program, the National Society of Black Engineers and the American Institute for Chemical Engineers.

### Nathanael Haase

**Q: Why did you choose UD?**

A: I chose UD because they had a good engineering program.

**Q: What is your favorite part about UD ?**

A: The opportunities to meet new people.

**Q: Why/How did you choose your major?**

A: I chose Mechanical Engineering because engineers make a difference in people's lives. Also because it would open the door to many successful career paths.

**Q: How have you changed over your time at UD?**

A: I have learned to better manage my time and complete my work more effectively.

**Q: What is one thing that you would tell someone who is considering engineering as a major?**

A: Focus on your studies and get involved around campus.

**Q: What do you enjoy most about being an engineering student?**

A: The problem solving aspect of engineering keeps the major fun and challenging at the same time.

**Q: Once you earn your degree, what goals do you plan to achieve?**

A: I want to graduate from graduate school.

**Q: How did you find out about the RISE Program?**

A: The RISE Program reached out to me as an incoming freshman.

**Q: Tell us about your experience with the RISE Program.**

A: I've made a lot of friends that will follow me until I graduate.

**Q: What campus activities do you participate in for fun? Give a brief description of the activity.**

A: I am a member of the University of Delaware Football Team.