

Kurt Degregorio

It's tough when you hear the reality of some of the problems in our world and you can't do much about them. It's the feeling of being eager to work to solve but feeling unsure of where to start or how to help. This eagerness has been with me for a long time but I finally got the opportunity to act on it by going to Guatemala on the Engineering Abroad experience.



Through physically working alongside professionals, the team and the locals to improve the quality and convenience of water for the Vuelta Grande community, discussing and solving the issues at hand and the process of exploring a whole new part of the world with the company of my friends I got to really embrace the experience. Among the other ways the experience impacted me, it provided clarity to some of the applications of engineering that can directly help people. bringing me a new sense of direction and purpose within engineering and gave me a very real perspective on the issues of the world and some practical methods on how to solve them. Although we made some mistakes or encountered unexpected problems in the field, we were able to roll with the punches handle them in creative and improvisational ways.

Our work days were dedicated to three projects were we used different strategies and activities to complete them. The spring box project was one were we did doing a lot of labor to assistance of the local workforce. They already had a general idea of how and where to construct it but there were some things that the professionals adjusted to improve the system. The work mostly consisted of bringing materials to the work site, which was no easy task. There was a hill we had to scale with the heavy equipment and on top of that.. there were bees. One of the days, Windy got swarmed by the bees and as a team we rushed to help her, make sure she was okay and retrieve her stuff from where the swarm was. This showed me how important it is to have a group of people to look out for you and that we should always have a first aid kit nearby the worksite. The second project was installing the water tanks which got more technical and more mind engaging. We had Brandon to look to on how the mechanics of the system should be adjusted. The final project was a retaining wall above the school basketball court. We helped put in the first step and a half and left it to the local workforce to finish it up, which they are more than capable of. Working as we did showed us what we did that was productive and what wasn't.

Overall I believe this experience matured me as a person, gave me a better idea of the problems to be solved in Guatemala, and reaffirmed my drive for Engineering as a career to really help people all over the world in various conditions.

Xitlali Galmez

Throughout the years of being an engineering student at Cabrillo, not once did I ever think I would qualify for the Engineering Abroad Program to Guatemala. Many of my friends had already attended and all I could be was happy and excited for them and their experience. It wasn't until Spring 2017 that a friend, who had gone two years prior, convinced me to apply to the program. The morning I received the email notifying me that I had been selected was an unforgettable one. I was excited to finally go through the experience myself.



During the experience we did a lot of physical labor, everything from carrying materials and tools up a steep mountain, to mixing concrete. The engineering aspect I gained was learning about the design of the sediment tank that we were constructing, the project which I focused on, and about the water system at Vuelta Grande. I also had the chance to experience the difference of working within a group on projects that affect people and the way they live, rather than on another school project. The biggest way the program has impacted me as a future engineer is by confirming that humanitarian engineering is what I want to focus on. I was fortunate enough to be able to work with Phaidra, who was a student lead on Engineers without Borders at Cal Poly-SLO and is now a professional engineer. I really liked listening to her advice and her experiences about working on different humanitarian projects. I was also lucky enough to learn a lot of hands-on work from Brandon, someone with a lot of skill in multiple types of labor work and in engineering. The skills that I gained during the program are ones that I am grateful for. I see that they might be helpful in the career path that I want to take. At the moment I still can't figure out how else the program has impacted me as a future engineer but I'm sure I will find out soon while I continue pursuing my degree or maybe until I am out in the field.

Experiencing the culture in Vuelta Grande was one of the most humbling experiences. I definitely changed as a person but in ways that are hard to explain. The biggest impact was due to one of the conversations I had with a local, Adrian, about how grateful he was for our help. He continued to tell me how vital the sediment tank is to the community and that with our help it was getting done faster. After we talked about the tank, we talked about how much limited water families have during the three to four-month dry season. For a while it was hard for me to accept the fact that the work that I had found to be fun and enjoyable was such a big impact to a whole community. That's when I realized that I was working on the project with a mindset of "lets just get this done," instead of thinking about how imperative the sediment tank was to provide cleaner water to the community. It had brought me back to thinking about why I want to do humanitarian work. I've never felt as accomplished, yet unexplainably different, as I did then. But overall, I can't be anymore thankful for Adrian's work, patience, dedication and our shared conversation.

Daniel Hall

I would like to start off by saying that this Engineering Abroad experience has been the most amazing opportunities to ever happen to me. Not only has this experience opened my eyes more to the world of engineering but it also gave me a taste of the real world; both the world of engineering and the world outside of The United States. When we first landed in Guatemala, you just get that first wave of emotion of “wow, I’m actually here”. Even the first few days I could not believe I was in Guatemala and it just felt so surreal to finally get here and start working. By being there, I was in another completely different mindset. All I had to worry about was my team and what projects we were doing while there. This type of mindset gave me a taste of the real world because I didn’t have to stress about school or other little things that are tugging at me here. When our main guide and helper in Guatemala, Erbin, gave us the run-down on our first work day, it started to hype me up and I was excited to work. I felt apart of the community and the community soon began to show their welcoming nature. The kids were amazing and the locals were so friendly, it was a seemingly everlasting feeling being with them and I miss seeing them everyday on the job site. Luckily in this field there will always be more amazing people, friendly faces, new friends; but I would love to go back just for them. By being apart of this community and their lives, it made me want to do more and care more for the project I was doing. I wanted things to go even better for them than how things currently are. With all of the hard work and manual labor we put into these projects, it was the most gratifying thing to see the end results. We got to see most of our projects working in action by the time we left and that ended up being the most satisfying and rewarding part. Although this career path already seemed secure in my life, being able to have this opportunity impacted me as a future engineer even further and is just one more reason to stay on this path. You never know where some opportunities will take you and thankfully this experience had an extremely positive influence on my life. By supporting programs such as this one at our Community College, you not only enhance the lives of those who get to go but you also enhance the lives of those we can help. There are so many great souls inside the future engineers at this school and I believe they can truly make a difference with the aid of others to help us get them there as a group. I am very proud of our group and the community that was able to help us. By far this will be an experience I remember for the rest of my life and that's how this opportunity will impact my future engineering career.



Antonio Hernandez-Abrego



Throughout my weeks of experience with the Engineering Abroad Program, I gained was humbled and met some of the most hard working individuals I've known. To start off, the reason for our group's visit to Guatemala was to be included in Engineering projects that perhaps would only be performed in countries outside of the United States. This includes locations where water is a fine resource and so are the tools to work on projects. Arriving to Vuelta Grande Guatemala, Sacatepequez was a tremendous eye opener for me. The first minute I witnessed some of the projects I had seen on pictures from previous Abroad Groups and was astounded to see them standing with a function to the town. Getting to see the town and how humble the children were running around with beat up shoes where dirt was constantly in their feet was sad. The thing I noticed was that these kids were enjoying themselves more than the children I tend to see in the states. They had a smile on their face each time they'd see our group members and always wanted to play. You didn't need to give these kids any technology to enjoy themselves. By giving them attention and playing with them, you made them the happiest children you'd ever note in your life. Getting to work on the actual projects was a fun and laborious experience. No matter how hard a job looks, this taught me to actually go for it, and attempt it with your best intentions. I was mainly sited on helping build the concrete sediment tank where in order to arrive at the site you'd need to walk up a ridiculously sloped hill. This was the daily walk and actually carrying tools and equipment on your back to make it up to the site. I was able to incorporate knowledge gained from my Engineering Materials course to this job site. Here we had to create a concrete mix several times throughout the day. I gained the idea of what a concrete mix must consist of in order to hold up blocks. This may include for a small tank, or home needed to be built in a country outside of the United States. We were guided by these humble people who gave instructions on the work that was needed to complete at the site. When given a task, I was happy to take it and go with it, it served to me as a tremendous experience that I needed to get my hands on anything that was needed to get done. The trait of working as a team is something that I will need for my future career. Being able to communicate with all of the crew regardless if they spoke spanish or english, there wasn't a language barrier for me. In fact, I was asked to translate quite a lot during the experience which I enjoyed as it only helped me strengthen my communication along with helping engage in volunteer work. I was introduced into the Guatemalan culture which included the Mayan Culture. I was amazed by the work these individuals did and how their roots were still alive in present day. Being in Latin American Art and Spanish courses throughout High School and Community College allowed me to learn about these cultures. I was amazed when I actually got to see them in person.

Tim Holt

Engineering Abroad has been a transformative experience for myself and I will never be the same. I have spoken to people who went with



previous Abroad groups and they all said that it was really cool, but none seemed to have had the same effect that it had to the people I went with. I didn't really know what to expect before heading out, but in coming back I know that those people, and especially the kids, will always have a special place in my heart. The first day that we were there a group of Brandon, Xitlali, Tony, Antonio, Kurt, and myself went around checking the tanks from earlier years, and while fixing a burst pipe two kids came shyly up the incline to see what we were doing and who we were. Little did I know that we had just met two of my favorite kids I had ever met, and I worked with hundreds of kids as a Junior Guard Instructor. Their names are Freddy Manuel and Estrella, and every day we came near their village (Colorada) they came out to help us with our tasks. Their unwavering enthusiasm and cheeky smiles made us want to work even harder because we knew our efforts could in some small way improve their lives. It was also telling that we saw them every day even though school had started. When I asked why they weren't attending the school in Vuelta Grande I was told that their father doesn't let them go. This absolutely broke my heart because they are such bright, intelligent young kids who deserve to get an education and I know they would go far.

Those munchkins and all the people in Vuelta Grande has made me want to shift my career goals so that I can help people like them. There was another boy named Henry that we met on the second day after we had fixed the tanks. We were exploring the rest of the town when we came across a boy who was carrying a battered soccer ball down to their field. We asked if he wanted some company and ended up playing for a while and had what felt like most of the boys in Colorada playing with us. Henry was by far the best player and I wanted to make sure that he had a decent ball to play with, so I personally delivered one of the balls that I brought to him. His face lit up like nothing I have seen before, and I know that I also want to find a way to send soccer balls to impoverished communities in Guatemala and elsewhere. Erbin and Don Miguel made us feel like an extended part of their family, and with them I have felt more of a community vibe than I have in Santa Cruz. I cannot wait to go on another trip where my engineering skills can really help the community like we did. I have already recommended applying to everyone who talked to me and will be a willing advocate for however long Engineering Abroad continues.

Jailene Lazaro

The opportunity to travel with Engineering abroad allowed me to open my eyes and realize all that we have here. It also taught me how helping a community goes a very long way and is very appreciated. I have become much more appreciative of what I have and how I live. During my time in Guatemala I became very



attached to the kids in the community of Vuelta Grande. I was amazed with their strength, responsibility, and intelligence. It saddened me to know that two of the kids who spent a lot of time with me and the group were not allowed to go to school. The group and I decided to gift them some pens, pencils and notebooks. I made sure to write their names in the notebooks so they could at least learn to spell. I was overwhelmed to hear that the only letters they knew were the letters 'i' and 'o'. After receiving their notebooks one of the kids told me that their father said he might let them go to school, this gave me hope. This made me realize how lucky we are to be able to attend school everyday and to have free public education in elementary, middle and high schools. In Vuelta Grande while talking to one of the girls I became aware of a bacteria that presents itself as a sore and is most common in children. I was able to see how a 4 year old girl was affected by this and I became concerned because she was not receiving any form of medical treatment. Experiencing this really had a huge impact on me because I felt like I couldn't do anything about it and no one seemed to be doing anything about it either. It made me realize that that the wellbeing and health of others is something that I really care about. This experience helped me realize what it is that I really want to do in life. It made me realize that I care about people and I care about helping them directly. I learned the valuable skill of working as a team and being persistent even when it gets difficult. I learned that labor work is hard and now I have deeper appreciation for the people in family who have to do labor work everyday.

Stephany Melo-Marroquin

This experience has irrevocably changed my outlook on life and my future career as an engineer. I already knew that I wanted to be a mechanical engineer and this experience has solidified that further. Spending two weeks in Antigua, Guatemala; specifically in Vuelta Grande and Colorada was a wonderful adventure. Everyday we



woke up ready to work and learned something new from Phaidra, Adrian, Irbin, or any of the other people we were working alongside with. I've said it before but many of us wanted to get the hands on experience of working and that is what we got in spades. It was hard work, physically taxing work that some of us had to get used to. I found this as a welcomed opportunity because I doubt I would get the chance to work in that kind of environment in my daily life. It was a bit difficult to work around, or rather with, the language barrier between the majority of our group and the locals. The Spanish speakers in the group found themselves being the translators in several occasions, which is a role I felt very comfortable in. We all faced some obstacles while in Guatemala and we all learned so much from it. I look forward to being able to do this type of work for a living. This was an opportunity that no engineering student should pass up.

To say that I enjoyed this episode in my life is a huge understatement. The sites are incredible and the environments that can be found in this country are amazing. What I loved most about being Guatemala was the people we had the opportunity to meet and the memories we got to create. We met so many people; those in our home stays, while we were working, the city folk, most endearing of all; the families in Colorada and Vuelta Grande. The school children or the neighborhood kids would always come around to take a peak at what we were working on. We got to see how they past their time and how friendly they were.

It was a bit disconcerting to hear how these communities were in a sense abandoned. Vuelta Grande receives little to no help from the municipalities of Antigua. This was something we were told in our meetings in preparation for our stay in Guatemala; it was another thing to see how this town has to advocate for itself. During my stay there I came to my attention that there were very few people in the city of Antigua that had heard of Vuelta Grande or Colorada; towns that were only a ten minute drive from them. This made there gratitude and willingness to work with us more understandable. I had the pleasure of meeting Roberto Noj Secaida; a teacher at the school in Vuelta Grande, who was expressing his appreciation for the work that we were doing. I wish we had more time in Guatemala to continue to cultivate these relationships and to just be able to do more for this community. The days we spent there will always be near and dear to me. The entire experience was fulfilling and if I could I would re-apply for this program.

Tony Pulido

The work done in Guatemala has shown me there are opportunities in Engineering.

When we got to the setting of where we are working at, I realized it wasn't the most comfortable place to work as an engineer. Most engineers usually get sent to a specific location for the skills they have and contribute what they can. A lot of walking needed to get done in order to transport materials from one place to the other. That could bring down engineers and showing them that this is the tedious part of doing engineering. While doing some of the work, which was most of construction, many comparisons could be made for construction and engineering. Construction workers usually just go for the work and do "trial and error". That's not a way I would approach a problem. From the engineering side,



engineers take their time, design, look at safety precautions, and get workers that will take the same precautions as they would. The engineering side is more organized and will get things done in a more precise way. A few attributes were gained and showed me what engineers will be working with. First, teamwork was made in order to get the project done. Having to take up heavy material up the steep hill was very difficult. Instead, we got teammates in equidistant positions from the whole walk and made the work easier and faster for everyone. Another attribute I gained from the experience was having people different people in a team can make different outcomes. A team can get work done in a quick way. Another can get the work done, but in a slower pace. Engineers can never tell whether the team will be successful until the work has started. The experience has shown me that an engineer must know a lot of things in order to do his or her job. With the courses taken at Cabrillo and when I transfer will help me attain skills to do the work. I would love to do more abroad projects that are related to engineering because with the feeling of helping a community that can't attain a lot of assistance, being able to be the one that can make a difference can look good on a person and make look better for engineering jobs. With wanting to attain a degree in electrical engineering, I wasn't able to determine if I want to do electrical abroad since there was no electrical projects, but I was able to determine if I would like to change my degree in engineering. As a future engineer I realized that engineering can be fun and difficult at times. In the end, being able to contribute to the world is very honorable and knowing that making an impact to a world can change a person's life and even many communities. This experience has given me more motivation into getting my degree in engineering and joining the engineering world.