

## **ECOLE POLYTECHNIQUE SCHOLARS PROGRAM: PARTICIPANT COMMENTS 2021 & 2019**

### **2021 Comments**

#### **Isabel Swafford '22 - Astrophysics Caltech & Science et Défis du Spatial (SDS) Ecole Polytechnique**

Ecole Polytechnique is one of premier engineering schools in France, and is a part of the Grandes Ecoles system in France, somewhat similar to the Ivy Leagues in the US. The campus is located in Palaiseau, which is just outside of Paris. The school was established in 1794, and it was turned into a military academy by Napoleon I in 1804. The military connections still remain, and on special occasions and certain holidays, you can see Polytechniciens and Polytechniciennes (the students who attend Polytechnique) dressed up in their uniforms, with pointy hats and skinny swords.

I am taking four classes in my programme d'approfondissement (PA) (d'approfondissement means deepening), which is my major or option as we call it at Caltech, and one French language class. For those studying astrophysics at Caltech, or physics majors who enjoy astronomy topics, I highly recommend the Science et Défis du Spatial (SDS) PA. The managing professor of the PA is very nice and welcoming, and he even organized a week-long trip to visit CNES (the French space agency) in Toulouse before our classes started! The trip was a perfect opportunity for me to meet all of the other students in my PA and make friends, and of course to learn more about the work that CNES does (sometimes in collaboration with JPL!).

The one thing that is true about studying at Polytechnique is that it makes a huge difference if you can understand and speak French at a high level. All of the lecturers and scientists spoke in French at CNES, and although the slides were in English and many people around me knew English as well, the preferred language among the group and during breaks and lunches was French. I've found that this is true for socializing with the Polytechnique students as well. All students have some level of English knowledge, and many can speak it very well, but they all prefer to speak in French. Three out of four of my science classes are taught in French as well. There is the option to request that the course be taught in English, but you have to be brave as you are often the only one, or one of a few, who might want the class in English. I chose not to ask for my classes to be in English as I wanted to practice my French skills, but also because many class materials are in English, including homework and lecture notes.

My French class is super fun as we are studying French art and politics from the 19<sup>th</sup> and 20<sup>th</sup> centuries. There were also other choices for C1 level and higher, including delving deep into the structures of the French language and other culture-focused classes. The class is very discussion-based, and since the class is for French foreign language speakers, we have very interesting discussions coming from all of our different backgrounds and cultures. I've also learned more about French art history, which has made my trips to Paris museums even more interesting.

As you will see at Polytechnique, the exchange students make friends with each other very quickly. We all live in the same building and share the same kitchen for meals. Right after our

initial welcome meeting from the study abroad office at Polytechnique, we exchanged information and made a big group chat for organizing outings to Paris or for asking and answering logistical questions about campus life.

Almost all of the exchange students I've met are first or second year master's students, and since most of the master's courses are in English, all of the exchange students speak English at very high level, and we prefer to speak English with each other. So don't worry at all about making friends! Or about getting tired of speaking in French all the time! We all see each other in the kitchen almost every night, and we've organized tons of dinners and parties for each other. We've had a Spanish themed night hosted by the Spanish students, lots of birthday parties, and I even hosted an American Thanksgiving dinner with turkey and all the trimmings. My friends here are some of the nicest people I've met, and I'm so happy to have made such great friends from all over the world.

Sports are a huge part of campus life at Polytechnique, as each Polytechnique student is required to join a sports team. Sports teams are organized into individual dorm buildings, very similar to the Caltech house system, where students within their sports section (as it's called here) can cook dinners together, hang out in the lounge, or walk to practice together. I joined the swim team here, as I am also on the Caltech swim team, but I decided to still live with the other exchange students. I'm really glad that I joined the swim team at Polytechnique not only because I can continue training, but because it has also given me an easy opportunity to make friends with the French students outside of classes. I got to participate in one of the big sports competitions, La Coupe de L'X, where all of the sports on campus have competitions on the same day. It was super fun, and I became a lot closer with my teammates after competing together. The coach is very nice and was easy to communicate with via email before coming to Polytechnique.

Many of the courses are self-guided outside of lectures and problem sessions, so studying has to be done on your own schedule. I try to keep most of my studying to the weekdays so I can go into Paris on the weekends. I go to Paris almost every weekend to see museums, go to concerts, walk around different parts of the city, eat delicious meals, and to go out with friends! Studying and classes are still your number one priority while you study abroad, but you are in Paris after all! :)

You get one week of vacation at the end of October where you have no classes (and usually no homework) and you are able to travel! A friend and I made plans early on to go to Spain and visit the Basque country. We visited San Sebastian and Bilbao, and I highly recommend it! The food was absolutely amazing and very affordable compared to some Parisian places. After visiting Spain, we parted ways and I met up with a high school friend who was studying in Amsterdam this term. It was awesome to reconnect, and especially in a foreign country! She showed me around the city, and we spent time with her university friends. It was an awesome vacation, and it was really nice to get a true break from classes, whereas the breaks at Caltech can often feel very short.

I highly recommend the study abroad program with Ecole Polytechnique! It's a fantastic opportunity to learn via different methods of teaching than what is common in the US, and also

all in a new language. It has really challenged me to understand the material that I hear in French and that I study later on in English.

I've met some amazing people here, from France and all over the world, and I truly have a new perspective from talking with my friends from different backgrounds. Going to a new country and new school, all in a foreign language can be very intimidating, don't get me wrong, but it's a challenge worth accepting! I've grown a lot as a person, and I feel more confident and independent than before. I've also appreciated the change of pace from the Caltech student life. It's honestly been one of the best times of my life! So, enroll in that next French course and apply to Polytechnique!

## **2019 Comments**

### **Mei-Ling Laures '19 - Computer Science Caltech & Informatiques Ecole Polytechnique FALL 2019**

There's so much about École Polytechnique (X) that is both familiar and different. (Note that the letter "X" has been another name for École Polytechnique since the mid-19th century, originating from the crossed cannons in its original insignia, as well as a symbol for the school's scientific education, stemming from the ubiquitous x variable used in scientific and mathematic equations.)

The first thing to compare - perhaps because it is the most obvious - is the size in terms of students. X is twice as big as Caltech with around 2000 Cycle d'Ingenieurs (the advanced undergrad program), 550 master's students and 570 PhD students. However, a big difference is the size of the campus. X has such a huge amount of space (including a lake and horseback riding facilities); even though X and Caltech are not in the city center, X has a location that feels a little more remote because it is surrounded by French towns and not in urban LA. (X is only 9 miles from the center of Paris, while Caltech is 12 miles from downtown LA.) It has a large amount of land, situated on a hill's plateau. You have to walk down almost 300 steps to get to the nearest station: Lozère. Thankfully you can take the RER B straight from the station all the way into Paris - unlike from Caltech, where you basically have to drive to get anywhere. (Or you can be lazy and take the bus to another closeby train station.)

#### Classes

While Caltech may not necessarily offer the exact classes that I'm taking here, the level of work and rigor are identical. Each major class that I am taking (4 altogether) require coursework, just as they would at Caltech. The nice thing is, they're properly united! With 4 hours spent in class (two in lecture and two in the petit class) I have found that I use the rest of my time on the coursework, as it takes up almost the rest of the 9 units. With any other time I have, I'll go over the lectures to better learn the material.

There are certainly advantages and disadvantages to this style. While it feels like we learn material at a much slower pace, because there is only one lecture a week, we actually go through it at a comparable, if not faster pace. It's important to note that even though we are at X for longer than Fall term, there are actually fewer teaching weeks. Since all of the information needs to be learned in the four hours that we are allotted each week, it's all pushed into our heads in that short amount of time, leaving the revision and trying to keep that information there for you to do in your own time.

#### Sports

In every way possible, I think that the sports sections at X are exactly the same as the house system we have at Caltech. Polytechniciens will live with their sport section the whole time they are on campus. This time includes having practice, making meals, and partying as well. This system is both familiar and unfamiliar. Familiar, because I see the same companionship as Caltech's houses. Unfamiliar because as a visitor, I am living in a section that I don't practice with. (Students do not have to join a team or do any sports, but it is a great way to practice French.)

I am going to Escalade practices, which are really fun to join. As a sport it's very individual, but each session I am able to meet someone new in the section, as we pair up to climb and belay for each other. This is actually where I get the majority of my French exposure, as all of my classes are in English rather than French. This is due to the master's students, as X accepts a huge number of international students for master's programs, such that English and French are heard in the lunchroom at almost equal frequencies.

### Food

Speaking of lunch, the food here is really a great perk, and not at all why I came to France in the first place... Joking aside, even the lunchroom food at the Magnan (campus cafeteria) is wholesome and fairly healthy. With every entrée – of which there are usually at least 3 choices – you are able to get sides at very little additional cost. It resembles a home cooked meal rather than lunch food that is so often served in American cafeterias. Instead of burgers, sandwiches, or pizza (although pizza is served occasionally) there will be dishes such as falafel, lasagna or stuffed crepes that are offered for entrees. There are small desserts on offer, but I find the most French thing to be the selection of cheese that you can take and eat as part of lunch. There's even a nice selection of cheese like brie, buche de chevre and blue. For dinner, we have kitchens to cook for ourselves. Most days I have joined other international students to make dinner, but it's always a treat to go into Paris for bistro food. Choose almost any bistro on the street, and you'll be amazed by the quality of the food. It's always rich and always delicious, whether you're getting steak, duck confit, fish, tartare... the list can go on and on. I haven't even mentioned the pastries yet! Obviously, they're divine wherever I get them, because who doesn't love a classic croissant, a pain au chocolat, a madelene, or a canelé?

### Travel

As mentioned above, a trip into Paris is a really easy way to spice up any weekend! There are so many things to do, from visiting gardens and museum, to just looking through shops and wandering the streets. I have explored le Marais quite a bit, but there are many more neighborhoods like St Germain de Pres and Trocadero that I still want to look around. Besides Paris, there are a lot of other locations that are really easy to get to. Being in France, there are many options for traveling, both within France itself and around Europe! It's possible to do small weekend trips around France, by car or by train. There are fast trains to cities all around France, like Marseille, Lyon, Rouen, or Bordeaux. The whole train system is centralized around Paris, so it's easy to get anywhere! However, I think renting a car is a really fun way to get around as well, especially with good company. Last month I went to Brittany on a road trip with some friends, and we had a great time doing karaoke in the car.

## **Angelica Zhou '20 - Planetary Science and English Caltech & Sciences pour les Défis de l'Environnement Ecole Polytechnique**

Ever since my first trip to Paris and Lyon in high school, I could not wait to return to France and be immersed in the country and language I spent 4 years studying. Part of my decision to enroll at Caltech was because of its connection with the exchange program at Ecole Polytechnique.

After 3 years in the Caltech bubble, it is indeed refreshing to not only experience a new school, but also to soak in the culture of a new country while surrounded by people with vastly different perspectives.

The primary purpose of an exchange program is to continue with academics, and fortunately Ecole Polytechnique offers challenging, but manageable courses. I am a planetary science major, but I had to choose a different option at Ecole Polytechnique because they do not have GPS courses until the second term. Finding a course schedule that matched my graduation requirements took a bit of research, but worked out well in the end. I chose the environmental science option here at EPT, which has given me the challenge and blessing of taking classes I would not normally enroll in at Caltech. For the first time in 6 years, I am taking some biology classes on genomics and population dynamics, which are actually very interesting and pertinent in the 21st century. In my opinion, the courses at Ecole Polytechnique are very practical, and I can see myself applying any of the information I learned at my future occupation. The course material is of a similar level to what I learned at Caltech, but the major difference is that most of the work is done in class or as independent reading. This meant that most of my weekends are completely free for travel to Paris or to other countries.

I am very grateful for the travel opportunities that come with having a base in France, as this is my first time exploring European countries outside of France. It is extremely easy to travel across France or to other countries by high-speed train or a short flight. Even though I have classes Monday to Friday, there are some occasional days off, so the weekends are convenient for short trips as well. Next week is the vacation week (Vacances de la Toussaint), and I will be going to the South of France and London.

On campus, there are a variety of sports teams and clubs available to connect with French students. I have been playing tennis for 12 years, so I began practicing with the team soon after my arrival. École Polytechnique offers most sports that Caltech has plus a few more, but at a lower time commitment and intensity than D3 sports require. Although every Polytechnicien has to join a sports kitchen, I found that the French are generally more lax about sports than Americans. The sports practices are all held in French, so this was actually the best way to practice my French. Most competitions start in November, and Ecole Polytechnique also hosts an all-sports tournament in October for nearby schools. The tennis coaches actually helped us start a women's team this year, because we had enough people interested in competition.

### **Tristan Nee '19 - Computer Science Caltech & Informatiques Ecole Polytechnique FALL 2018**

I am writing this during my 7th week here at Ecole Polytechnique (I'X). My first body paragraph is about life in general in France and at I'X, the second is about extracurriculars on campus, the third is about traveling, and the fourth is an academic comparison between I'X and Caltech.

One of my main goals for my study abroad was to improve my French speaking. Although I am taking a French class that focuses a lot on writing and reading, I find it most useful to know how to speak fluently because it makes visiting places in France a lot more enjoyable and easier. Even though everyone at I'X speaks English pretty well, it is still useful to know French because many notes are French and sometimes professors or students explain things better in

French. Furthermore, when you go outside of l'X and talk to vendors or random people in Paris for example, they might not know English, so it's very useful to know how to speak and understand French. So yes, I'd say improving my fluency is a huge goal for me here, and that can be challenging because most of the exchange students talk to each other in English, since that is what we are most comfortable with. There is a mix of Germans, Swiss, Italians, Argentinians, Iranians, Chinese, Nigerian, and (a few) Americans in which the best language in common in the group is English. Fortunately, I joined the soccer team at l'X, and in that team everyone speaks French, so I get some good practice there and would definitely say that after 4 weeks of being with the team, my French has already improved. The food at l'X is pretty good. During lunch, I eat with either the exchange students or the soccer team at the cafeteria called Magnan, and it serves pretty typical French appetizers like small pieces of bread, typical French cheese like camembert. I'd say the overall quality of the food at l'X is better than Caltech dining service. And the food at Magnan is pretty cheap (I can get a pretty filling meal with meat, veggies, and pasta/rice/grain for under 2 euros). For dinner, I usually cook with the people in my dorm (which is about 50 people, but only maximum of around 15 people eating at once), and I usually make pasta with pesto. I would note that people here eat dinner so much later than people at Caltech do. I usually eat around 8 pm here with a few other exchange students. To buy food and go shopping, I usually go to a huge shopping district which is only one stop away on the RER (a train service) from Polytechnique's closest RER stop Lozere. The district features an enormous grocery store where you can find anything food/housing supply related, and also many other nice stores like H&M, Fnac (electronics store), and Intersport (athletic apparel store).

I have 2 main extracurricular activities: piano and soccer. I've been able to do both of those as much as I wanted at l'X. For piano, there are about 6 very nice quality stand up pianos about a 1-minute walk away from my dorm, each in their own little shack. You just have to request access for them and you can use them whenever someone else is not using them. One of the things I am most happy about here is how invested students at l'X are in sports. In fact, every polytechnicien (l'X students not counting exchange students) must do 6 hours of sports every week. Also, since this is France, there are a lot of soccer players, and on average they are usually a lot better than Americans. During my stay here, I know that there are about 90 polytechniciens playing soccer, and 3 teams that they can be placed in (so about half of those 90 aren't in a team). I joined X1 (the top team at l'X), and the level of soccer in this team is awesome. We won our first match 7-1 against a team in our division (D2), and also beat a D1 team 1-0. I'm looking forward to the rest of our matches and the bus trips with the team. The players on the team are all very nice and welcoming too and that is mostly where I learn French slang. There are also so many other sports here at l'X. Even though the campus at l'X is probably not as aesthetically pleasing as Caltech's campus, I'd say it's a more fun campus because it has so many more sports facilities than Caltech has. l'X has horses for the horseback riding classes, they have a lake for rowing classes and competitions, they have climbing classes, judo, kickboxing, karate, swimming, rugby, and many other sports. For these sports, if you come here as an exchange student, you can choose to do them recreationally, or competitively with other polytechniciens. There is also an orchestra that you can join.

Another thing that's super nice about being at l'X is how easy it is to travel to different places. If you take the RER, it would take you about 45 minutes to get from l'X to the center of Paris, where there is so much to do. I go to Paris almost every weekend for sightseeing, and

occasionally parties (of which there are almost every day somewhere in Paris). Also, traveling to other nearby countries is super easy. For the week of vacation that we have at the end of October (Toussaint), I am going to be traveling to Athens, Greece (and neighboring islands) for 6 days, and then to Munich for 2 days. I will also be visiting Barcelona and watching FC Barcelona play. The round trip for Barcelona only cost 40 euros! I also have been visiting Chartres a lot, which is about 1.5 hours away from Paris and I take the TER to get there. Basically, if you want to study abroad and also visit many other places, choosing I'X is a great choice because it is super easy to travel to other places. I still have more than half of my study abroad left and plan to travel a lot more.

At Caltech, I major in CS, and at I'X, I'm taking 4 Informatiques (CS) classes. If I were to compare the academics, I'd say that the complexity and intellectual level of the classes at I'X are at about the same level as Caltech CS classes. I'm taking two classes that have a very practical focus (instead of theoretical), which is a nice change from many of Caltech's theoretically inclined classes. But the two other courses I'm taking are pretty theoretical and are about as challenging as a Caltech CS class. I'd say the main difference is the amount of homework we're assigned here. In my opinion, there is much less homework at I'X, and instead most of the work you do is done in the "practical session", which is usually a 2-hour session right after the lecture. So, in this practical session, you basically do what you'd have to do as homework, but with the help of the professor or TA. It's kind of like an office hour actually, but many times (in 2/4 of my classes), the work done in the practical session is not work you have to turn in for it to be graded, but rather work that trains you so you can pass the final exam, which is the bulk of your final grade. So, these practical sessions are pretty important to attend, but they are nice and constructive.

Overall, I am very happy that I am here for 3.5 months at I'X, and very thankful for this opportunity. I definitely wish I could spend more time here, but I know I will come back to visit France.

**Wenqing (William) Xu '19 – Mathematics and Computer Science, Caltech & Informatique, Ecole Polytechnique  
FALL 2018**

You know, the often-repeated saying "Caltech Bubble" has never been clearer than when I was studying abroad. Now don't get me wrong, my first 3 years at Caltech were extremely enjoyable and I learned a lot in my classes. However, there was always a feeling that there was something more out there. I just couldn't put my finger on it. I always felt stuck in a grind. Now, I can point at so many different aspects of Ecole Polytechnique and say, "This is exactly how you get out."

As expected, settling into a new college in a new country was rough. There was a lot of paperwork to fill out to attend classes, do sports, and deal with the housing office. In addition, we had to make a French bank account to pay rent, which was annoying because the bank gave me the runaround when I deposited a check. My French was also rusty when I first landed, which led to some awkward situations. Another thing about Polytechnique is that it operates under the French military, so you often must interact with French army officers. Although this was disconcerting at first, they are all very nice and will help you with your stay. But eventually, I overcame these obstacles and France felt like home!

Studying abroad at Ecole Polytechnique is more than just studying at Caltech but in French. The subjects may look familiar, and course descriptions also seem mundane, but teaching styles are not. Classes at Ecole Polytechnique are usually divided into 2 sections: a 2-hour lecture, and a 2-hour practical session. The lectures are average, but I especially like the practical sessions. The practical sessions are when the professors hand out problem sets and help you with some of the problems. This is immensely helpful because it gets you on track to completing the entire set and allows you to get to know the professors. With regards to classes in French, I had a little trouble adjusting to the new vocabulary, but since I took mainly math-based CS classes, I adapted quickly. Getting help from other French students was also no problem and was also another opportunity to practice my French. Another striking thing was how Polytechnique and Caltech approaches the same topic. For example, graph problems at Ecole Polytechnique automatically assume that they are weighted, while Caltech does not. I feel like these different viewpoints will be extremely helpful when I collaborate with someone from France for research. Since Polytechnique is a small school like Caltech, class sizes are also very small. Although, classes at Polytechnique tend to drag on for too long, I still thoroughly enjoyed them. I also did research there on genetic algorithms. In fact, I would say the research at Polytechnique is even more encouraged than at Caltech because I heard announcements about research/internship activities in all my classes. ***At Polytechnique, I felt an eagerness to learn that I had not felt in years.***

Another striking feature of Polytechnique is the vibrant student life on campus. There are several sports teams living in the dorms, as well as countless other sports and student clubs. I was a member of the Ultimate Frisbee sports team, and I felt accepted by the other members. Playing in a sports team also helps you practice thinking on your feet in French and has led to true moments of camaraderie. There is also a vibrant night life on campus, with occasional fireworks over the campus bar. In most dormitories, there is a communal kitchen which acts as a place to cook, eat, and hang out. Sometimes groups of people will work together to cook a meal for the other students, which is always fun. French food was also amazing, to say the least. Meals in the school cafeteria were better than those by Caltech Dining Services. In addition, I suspect the food is subsidized, because there is no way appetizers and desserts this good should cost this little. The close-knit social atmosphere at Polytechnique reminds me a lot of the house system at Caltech, one aspect of the "Caltech Bubble" I do not miss!"

A change in pace of daily life is also welcome. At Caltech, we are used to having most off-campus activities within walking distance or a long drive away. In France, there is a lot more walking and talking when you are getting groceries or going to Paris. I have cooked a lot more at Polytechnique than I ever did at Caltech. I even learned some new international recipes to try out! Going to Paris on the weekends is also fun. You just need to hop on a train for 40 minutes, and literally hundreds of museums, monuments, and attractions at your fingertips. Even better, since you are a student, most of them are free! The food in Parisian bakeries is also exquisite. Just make sure you find one away from the tourist traps. Because of this, I have learned so much about art, culture, and history, something I couldn't dream of doing at Caltech.

However, the most valuable experience during my study abroad period is the casual conversations I have had with French and other exchange students. Yes, classes are nice, sports are fun, and Paris is amazing, but what makes and breaks an experience for me is the day-to-day interactions with other students. In addition to the French students, I took classes with international students from all over the world like Germany, Italy, Israel, and even



Argentina. They brought with them their experiences, culture, and politics, leading to an active exchange of ideas. From this, I gained a new perspective on the world. There was more to the world than Caltech, and I must strive to discover it. I can confidently say that I will miss this part of my study abroad experience the most.

My recommendation for all incoming students is: try to put yourself out there in new situations. Whether you intend to go to industry or academia, studying abroad will broaden your horizons and diversify your thinking. Even though I have not taken as many classes here than I would normally, I still learned more than I ever could have at Caltech. In this globalized society, we will innovate the most when we reach out beyond our borders. And in today's increasingly nativist political discourse, something like that wouldn't be a bad thing at all.

### **Catherine Day '19 - Biology Caltech/Biologie Ecole Polytechnique FALL 2017**

I first heard about Ecole Polytechnique (l'X) in my high school French class while learning about the *grandes écoles* system, where students undergo two additional years of studies after high school before taking test in attempt to get into one of the celebrated *grandes écoles*. In short, l'X is the best technical school in all of France. As such, I set myself up to have high expectations of Ecole Polytechnique and of Paris. I'm happy to say that they more than fulfilled my hopes.

The structure of classes at Ecole Polytechnique is noticeably different from that of Caltech. Every class is accompanied by a *petite classe* where the emphasis is placed on solving problems rather than teaching new material. It's different from the homework given at Caltech as the point of the problems from the *petites classes* is that they are used for us to figure out how to apply the material to real life situations rather than just to learn the material. Because all of the problems are done in class with the professor, there is hardly any weekly homework to do. This sounds nice and all, but rather than being let completely off the hook, this style of teaching promotes a lot of individual accountability. There are no checkpoints during the trimester and students have the responsibility of keeping up with the class by themselves.

Because of the way classes work, there is quite a bit of time to invest in other activities. There are plenty of *binets*, or clubs, to join as well as a large variety of sports to choose from. At Ecole Polytechnique, their housing system is revolved around the sports teams, in which participation is required. Although I am not living with the Polytechniciens, I've found it quite easy to join the sports teams. I have been practicing with the girls' volleyball team and have also joined the rowing sports club (note that there's a lake on campus!). Proud to say that I've gone from not knowing how to row at all to being able to race across the lake!

In addition to having time to exercise, I've also been able to make time to travel to Paris, other regions in France and other countries in Europe. There is a never-ending list of monuments and museums in Paris to visit. My friends and I often just wander the streets of Paris, take a coffee in a random café and sit in the many beautiful gardens. There's always a *boulangerie* or a *crêperie* around the corner if we get hungry after walking around for a few hours. It's amazing how little by little, it's possible to piece together the city of Paris. Paris is no longer just a conglomeration of famous tourist sites, but is a beautiful city that should be explored fully.

Because Paris is one of the most travelled to cities, it's easy to fly from Paris to any other French region or country in Europe. In the span of the 15 weeks that I have spent here, I'll have travelled to Bordeaux, various cities in Normandy, Lisbon (Portugal), Edinburgh (Scotland), London and Cambridge. Travel within the Schengen area is unbelievably stress-free and I've found one of my favorite things about the European Union: my French phone plan will work when I'm travelling to any European Union country - without any additional fees. Aside from the benefits of the policies, it's been very liberating to be able to travel around to so many countries.

Along with my newfound appreciation for the European Union, I've also been able to learn much more about the individual countries in Europe directly from the residents of those countries. This year, all the exchange students were placed in one dorm together - consisting mostly of Erasmus (the exchange program of the European Union) students and a few other students from around the rest of the world.

Because we speak English with each other, it's true that my French skills haven't been improving as quickly as I expected. However, I wouldn't switch my dorm out for any other dorm. Instead of just learning about France and French culture, I've been able to learn more about Portugal, Italy, Germany, Spain, Switzerland and so many other countries. Every so often, we gather together for culture nights where we cook the cuisine of a specific country and it's always exciting to see the differences between the countries. The knowledge I've gained from talking with so many students from different countries more than makes up for my slower pace of French improvement. In any case, there's plenty of opportunities to converse with other students in French during classes and sports.

Coming to Ecole Polytechnique, I was quite apprehensive as I'm an inherently shy and withdrawn person. Caltech tends to allow students the liberty of interacting almost solely with their house and major over the span of the four years and I'll be the first to admit that I've taken advantage of the Caltech system these past two years. To study abroad though meant that I would be thrown once again into an environment that was completely unfamiliar, especially since there is the aspect of full French immersion. There was the worry that my French had deteriorated after two years of not taking class. I can't say that it has been easy sailing these past few months, but it's important to understand that part of self-development is stepping out of comfort zones. I've had to remind myself that it's fine that I needed someone to repeat what they said, or that the French students are more than likely completely willing to help, or that it's okay that there are times when I'd rather stay in my room and play music, but there are also times that I want to join the crowd to go partying. Studying abroad isn't just about the travelling and the studying, but it's also about building self-confidence and self-reliance. Of course, this journey can be taken at any study abroad program, but why not do so at one of the greatest schools and within reach of one of the brightest cities in the world?