Princeton Upload File

**If you are interested in pursuing a B.S.E. (Bachelor of Science in Engineering) degree, please write a 300-500 word essay describing why you are interested in studying engineering, any experiences in or exposure to engineering you have had, and how you think the programs in engineering offered at Princeton suit your particular interests.**

While preparing for the Informatic Olympiads in my junior year of highschool I discovered an algorithm lecture series online. I binge watched them until I got stuck on an algorithm designed to uncover differences between texts. In trying to figure it out I came across an article on its application to the analysis of DNA sequences of individuals from different species. I was fascinated by the application of this method across disciplines and challenged myself to do the same with the algorithms I was learning. One of the topics that I was struggling most with was balancing complicated chemical equations. I wrote a program that applied classic computer science to the balancing problem. I started using it in class and my friends found it very useful. Since that day, I step back at every opportunity and ask myself how what I am studying connects to what I know about computer science and how potential connections may change my understanding of the problem.

In the past few years I have created several programs for fun and profit, but its was through the development of a navigation app for the blind community and a health reimbursement platform for people with disabilities that I developed a passion for applying computer science to health for the benefit of society.

I want to learn about the latest advancements in the field of computational biology. The work carried out by the CS department and by Lewis-Sigler Institute for Integrative Genomics will be wonderful opportunities for me to familiarize myself with new developments in the area.

I do not only want to study computational biology, I hope to play a part in advancing it. I want to work alongside Barbara Engelhardt, whose work on protein prediction I believe will impact future medical research, and Mona Singh, who works on the application of machine learning algorithms to massive biological datasets.

I am also interested in understanding the larger picture. I am currently researching the policy changes required for people with disabilities to be able to submit digitally signed documents to the government through the internet. I know how big of a role policy has on the adoption of new technologies and I want to take part of the conjoined program between the CS department and Woodrow Wilson School of Public & International Affairs to be able to understand how these two areas interact.

I would like to apply what I learn at Princeton to become an entrepreneur focused on socially-minded work and believe Keller Center’s eLab Incubator will jumpstart my efforts.

**In addition to the essay you have written for the Common Application, please write an essay of about 500 words (no more than 650 words and no fewer than 250 words). Using one of the themes below as a starting point, write about a person, event, or experience that helped you define one of your values or in some way changed how you approach the world. Please do not repeat, in full or in part, the essay you wrote for the Common Application.**

1. **Tell us about a person who has influenced you in a significant way.**

My first chemistry teacher, Juan, was one of the most influential people in my life. He saw potential in me at a time I was not very interested in science. A week after the first class of the year, he invited me to an after-class science club, I decided to give it a try.

The club brought together students interested in competing in the Junior Science Olympiads. The first day I attended, I was surprised by the members’ commitment and the level of complexity of the topics Juan explained. He made sure that I was able to keep up with the workload. He lent me a pile of books so that I could catch up on weekends. He was different from my other teachers. Not only did he make sure we understood each topic thoroughly, but he also cared for us on a personal level.

I grew close to him and continued attending the club, becoming more and more interested in science. With his mentorship I won round after round of competitions until I qualified for the International Junior Science Olympiad. After that I had to train away from my home town with the national team and dedicated trainers, so we sadly lost touch.

We were all away from home, and felt overwhelmed by the intensity of our training and the responsibility of having to represent our country and we became very close. The need to cope made us develop a strong team identity and the rigor of the training made us all develop endurance and persistence.

After a few months of this, we traveled to the Netherlands to compete and I came back with a bronze medal. The first person I wanted to tell was Juan, but I soon got the news that he had died of a heart attack. I was devastated. I would never be able to thank him for everything he did. When the school put up a plaque in his name, I cried. That piece of metal would never be able to reflect the huge impact he had on me.

My relationship with Juan was one of the most meaningful of my life. I will always be grateful for the role he played in developing my character and my passion for science. It was in his honour that I restarted the science club by teaching physics, to provide other students the same opportunity he had given me.

**Please briefly elaborate on one of your extracurricular activities or work experiences that was particularly meaningful to you. (About 150 words)**

I work as a developer and project manager for a startup called Reindi. Last July, the CEO reached out to me because of my familiarity with a technology called “blockchain”. The startup is a response to his personal predicament; two of his children are disabled and it has been difficult for him to navigate the network of healthcare insurers, manage health records, and receive reimbursements for treatment. I was touched by his story and decided to join his effort.

Together we outlined a blockchain-based document storage solution and I recruited a team to work on the project. We have since been working hard to bring this solution to life. We have built a platform that allows doctors to send treatment information directly and securely to clinics and to streamline reimbursements, and are in talks to become a partner of the national Health Information Bus initiative.

**Please tell us how you have spent the last two summers (or vacations between school years), including any jobs you have held. (About 150 words)**

I spent a good part of the past two summers developing apps for both fun and profit.

In 2018 I traveled to the Netherlands to represent Argentina in the International Junior Science Olympiad and brought back a bronze medal. I was also awarded a scholarship to study in Israel and spent three weeks learning about Jewish culture and history, and visiting sites of interest in Jerusalem, Tel Aviv and Masada.

In 2019, on a field-research scholarship, I joined a team studying the relationship between light intensity and vegetation development in Panama. When I returned home I focused on developing Couponara, a web platform for small and medium retailers to manage commercial promotions and customer relationships.