**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.**

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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.