**Explain your interest in Architecture in 200 words or less. Please be sure to upload ONLY the Final draft of your essay here (PDF preferred).**

“The water waves shone in aqua, the light pours down through the traditional-style railings…” It was a model we built out of recycled materials for the new complex on our campus. The waves were tailored from discarded Sprite bottles and the buildings were made out of used cardboard.

The complex was originally designed by a disciple of Ieoh Ming Pei. Inspiration coming from Chinese classical gardens, it not only reserves the slanting roofs and enclosed courtyards but also visual trick I call “a mooring point in space.”

During my childhood, I liked to wander around Suzhou’s historic gardens, among one of which there was a lake with a bridge at one end. While viewed from a certain angle, the lake seemed to extend behind the bridge and then into the bamboo forest. Here, everything builds upon each other visually. When I look through a floral window or walk along an ambulatory, it gives a sense of infinity for the path winding into jungles.

I likened these multi-dimensional garden architectures to the polytopes I learned in mathematics - objects travel in four-dimension. Each individual in gardens seems to be distinct and loosely connected, but when viewed as a whole complex, they become such a vibrant entirety. They travel, tangle, and scatter around. But they interact in such a way that the most advanced mathematical theory could hard to interpret.

I tried to understand architecture from a mathematic point of view, but it goes far beyond the logic with turning mathematics from the rational to the perceptual, from the regular to the non-linear.

[words: 260]

**What do you hope to accomplish during the program? What do you hope to gain from this experience? [Please do not exceed 100 words]**

**With the sunbeam passing through the window of the studio, reflecting off the model of Rheotomic surface in front of me. The texture makes it shine like gold.**

**I always dream about an opportunity like that, to fulfill my dream of creating something of my own. That is exactly what I could accomplish here, at Architecture Summer Program at Penn. A working studio of my own, professional instructions on architecture model making, free experiment with all sorts of imaginations, and a final product to show at an exhibit.**

**I would also love to tour around Pennsylvania, to see its unique architectural styles and city planning, especially Wright’s famous Fallingwater with my own eyes.**

**List any academic, community, or athletic honors or awards:**

1. Meritorious Award, 22nd Annual High School Mathematical Contest in Modeling (HiMCM), 2019
2. Honor Roll in BC, Canadian Open Mathematics Challenge, qualified to participate in CMO (Canadian Mathematical Olympiad), 11/2019
3. Top 5%, Euclid Contest, The CENTER for EDUCATION in MATHEMATICS and COMPUTING, University of Waterloo, 05/2019
4. Second Prize, CHINA THINKS BIG National Final, 03/2019
5. Third Prize, Columbia University Social Science Research Workshop, Columbia INCITE, 2019
6. First Prize (China), Math League, qualified for US Final (at Stanford) and its Math Camp (co-held by the Departments of Mathematics of Princeton University, Columbia University, and Williams College), 2018
7. Second Prize, Jiangsu Junior High School Mathematics Competition, 2017
8. Second Place (Global Final), The Berkeley Mini Math Tournament (BmMT), 2017

**List any extracurricular activities (sports, arts, community service, after-school classes, workshops, school newspaper, yearbook):**