

## **Personal Statement**

“Why is there a limit of speed in our universe?”

“You really never heard of a photon, a zero-mass particle?”

“No way! If it works, a man could travel to the past and kill himself!”

Discussions like this occurred almost every day between my friends and myself when we were merely 12-year-old schoolboys. These intriguing concepts, which were far beyond the scope of what physics textbooks could teach us, greatly aroused my curiosity and inspired me to carefully observe in everyday life various phenomena related to optics, phonics, magnetism and so on, to apply theoretical knowledge to dig out reasons behind, and to devise simple experiments to test a new idea. Guided by innocent interests, a nascent idea of becoming a physicist began to bud in my heart. Since I am accustomed to devoting myself to the realization of a goal once it is set, I worked diligently throughout my high school years, with a special focus on maths and physics. As a Chinese Physics Olympiad award winner, I was admitted to Peking University to take a step closer to my dream.

Unlike other typical Chinese students who would repeat laborious exercises simply to improve their GPAs, I seldom divert my attention from true physics (I still carry an outstanding GPA). I also cumulated much experience in the laboratory. Previously, I worked under the guidance of Professor Zhongfan Liu in the College of Chemistry and Molecular Engineering for over 3 months when I was only a sophomore, where I learned about controllable growth and transference of graphene. However, due to political reasons all the equipments are moved to Beijing Graphene Institute, which is

far away, making it too big a burden for an undergrad to commute to and from school. With enhanced experimental skills and a better understanding of the field of condensed matter kept in mind, I communicated with Professor Jian Wang and joined his group to continue the challenge of the most sophisticated experiments.

After all these fantastic research experiences, I am ambitious to delve deeper into the area of experimental research of quantum materials. I'm determined to apply my knowledge to unveil the delicate structures in the nanoscale world. Studying these amazing materials has been tremendous enjoyment for me not only because of the possibility of discovering exciting, new quantum phenomena in them, but also because of their promising application future and potential to fundamentally revolutionize social lives.