Dear Professor X, Greeting. This is X, one rising junior majored in Physics of Nanjing University, I want to apply for a research intern of a full year（from early July to next June) in your lab.

I know you might hesitate to host me, as you are not sure of an undergraduate. I will be a productive researcher and get significant papers coming out from my work in your lab. Let me convince you with two points of facts.

First, I have experience in conducting research closely related to your area.I have two journal articles on the topic of optimizing the hyperbolic cavity for strong coupling with few molecule exciton in preparation (One is listed as the first author, and the other one is listed as the second author), and another one journal article on the topic of interface state between photonic crystal/ metasurface polarization control in preparation (First author). Hopefully I can get them submitted by the end of spring semester.

Moreover, I have the general skills and strong motivation to learn by myself. In the process of academic training, I become very familiar with X to get field distribution, transmission and purcell factor of structure design. I am also a skillful user in C++ to optimize for the cavity design and MATLAB for Mie scattering calculation, and a hands-on student who does not need a lot of supervision.

My family will cover the entire travel and living expenses and I will take full care of the visa application. I am simply wondering if it is possible for me to conduct a full-year research in your group. In case you desire to take a look at my detailed academic background, I attach my CV, up-to-date transcript andmy website here for your convenience. I appreciate your time and reply.

Thank you for your time!

Regards,

X