My pursuit of HCI is the natural outcome of my artistic impulse meeting my engineering talent. As a girl, I prefer to express my feminine sensitivity of human emotions via the way of art. Being a good dancer, I am also skilled in many musical instruments such as piano, flute, etc, and I know both Chinese painting and caricature. UI design and development appeals to me in that it not only concerns human feelings like art but also gets inspiration from art. Moreover, with a rational left brain bestowed on by my family, I enjoyed myself considerably in my first user interface project designing a visual display platform for stock market. Since then, I have gained rich knowledge and experience in UI with the support of my artistic inspiration. Now I am ready to explore the even more amazing side of HCI in graduate school and to set sail for my career.

Through my participation in various projects, I laid down a solid technical basis of software development. The most challenging research is the Botnet Detection and Tracking System for campus networks currently in development in the Ministry of Education Key Lab for Intelligent Networks and Network Security in my university. I have experienced a more formal development process in the lab leading to my better understanding of software system development. My first achievement in this project was the boost of system efficiency that realizes real-time display of system data. The data processing rate being far slower than the data acquisition rate, the previous system only displays a newly captured Botnet domain after it generates XML on scheduled time, which along with reliability issues, renders the display module useless. As the amount of data was astoundingly huge and xml was inherently slow, pure optimization on parsing XML didn't help much in improving system performance. To resolve the problem fundamentally, I replaced XML with JSON data structure which parses very fast and is more compatible with AJAX technology. With the adoption of the new technologies, I saved the daily two hours that would otherwise be wasted on XML data initialization, and I eventually realized the real time monitoring of Botnets. Moreover, to solve users' concerns about Botnet distribution and activity, I mapped the actual location of active Botnet domains, by incorporating the open source google map, to study its temporal and spatial behaviors. Collaborating with another team member, I pushed the project even further, independently designing and implementing a Botnet Detection and Tracking System for Enterprise Usage. From this experience, my UI design and develop capacity has seen a major improvement，and it is also a direct incentive to my choice of HCI as my major thrust in the future.

My desire for HCI study could also be attributed to my personality. As a girl, I have more subtle feelings about others and keen observation of everyday life. In HCI projects, I am very much concerned about user experience and expectations. The first example is an online judge system I participated in development for the university's programming hobbyists. By reviewing similar systems, I found that users would frequently check the question page. Bearing similar functions, this project also reminded me of the software I developed for testing data analysis abilities of job candidates when I was an intern in New Choice Ltd. During that time, I solved the burst of user access request by caching them. Similarly, I chose the PHP

Smarty template engine, which is one-time compiled and takes full advantage of PHP compiler cache solutions, to construct the front-end with the results being lowered load and increasd efficiency. Moreover, thanks to its excellent separation of webpage design from core logic, the system becomes modular, thus facilitating ensuing upgrades to the system. I also volunteered to be the UI engineer in the renovation of a departmental website used for news release. Unfortunately, the flawed design cost the maintenance staff extra efforts in writing codes to publish new notices. I managed to fully understand the maintenance people's expectation of the system by listening to their needs and making changing based on their feedback from testing. With the introduction of RichFaces, the final product features an elegant green style and backstage management as easy as writing blog. To facilitate the interaction with the receivers (students), I employed RichFaces to add an additional forum feature to collect feedback, allowing more interaction through the system. From these projects, I came to understand that a good UI develop entails more than technological innovation. It should also be a perfect combination of various UI elements based on a substantial analysis of user needs, optimizing both user experience and system performance.

From all my above experience to date, I also developed my personal opinion on HCI. For the development of any computer system, while the methods are essentially limited, the human need is always infinite. And it is just this infinite possibility that captivated me and endowed me with great passion for a systematic in-depth study in HCI. In addition to my project experience, I would always participate in various training and co-op programs in leading software companies. More than my technical strength, on the personality level, HCI agrees with my art gift and critical thinking.

I believe in HCI because its biggest concern is the change of people' life. As a software engineer, while pushing forward technology, I am also very concerned about the people who cannot enjoy the technological advance. For graduate school and beyond, I would like to devote myself to the development of easy-to-use and reliable computer interface for the physically disabled people. Though suffering from the loss of mobility, most disabled people have a wholesome mind. And due to their inner solitude, they have a much stronger desire for communication than normal people. So I believe it would be quite an achievement in technology as well as humanity if there were a computer interface enabling them to acquire information and socialize just like normal people.

In the end, I am looking forward to joining University of Washington and making my dreams come real!