**Applied Program: Electrical Engineering**

In the innermost recesses of my mind, I have always maintained the belief that the value of any individual's life inhabits in his or her pursuit of worthy ideals. In fact, all genuine pursuits are necessarily an embittered mental journey that demands not only courage and self-confidence but also, more importantly, the spirit of persistence and perseverance.

I started to practice playing violin since 5 years old under the guidance of a teacher from Beijing Conservatory. Although I cherished unusual love for violin, the hardships of practicing playing this musical instrument were indeed too much for a girl of that age. In the middle school, I joined the Beijing Golden-Sail Adolescent Orchestra and took part in many formal performances in Beijing Musical Hall under the direction of Mr. Han Zhongjie, internationally-renowned conductor from China Central Symphonic Orchestra, and Mr. Bian Zhushuan, famous conductor from China Central Ballet Troupe. This experience significantly broadened my horizon in my formative years and deepened my inner humanistic cultivations apart from strengthening my spirit of teamwork and professionalism. For the rest of my life, I will benefit tremendously from it.

Instead of choosing a local university in Beijing that boasts the most advanced education in China, I opted for xxxxxx University (which is an equally prestigious university in China) thousands of miles away in order to establish an independent life away from the protection of my parents and the usual familiar environment. There, I immersed myself in the assimilation of a wealth of knowledge. Many courses related to the science and technology of electronic information, such as Principle of Digital Communication, Digital Image Processing, Fiber Communication, Information Theory and Coding, tremendously captured my intellectual interest. I was especially attracted by the course Digital Image Processing, which enabled me to savor the sophisticated fundamental knowledge in its specialized field and to establish a solid groundwork for future scientific research. It also gave me an opportunity to know the individual cases of the actual application of that basic knowledge an d enhanced my understanding of the nature of the technical problems that were involved. At the same time, I studied some important optional courses such as Western Religion and Western Art History, which partially formed a combination with my previous 10-year experience of violin playing and constructed for me a relatively complete intellectual framework in which both the East and the West converge. In my undergraduate studies, remarkable progress was achieved on a progressive basis as I gradually grasped effective academic approaches and improved my ability in conducting self-education. My GPA is 84/100, which put me among the top 10 percent among all the students of my grade.

In order to develop a systematic command of a programming language, I attempted at the programming of multimedia teaching software by applying Visual Basic Language as my graduation design. The purpose of this project was to describe experimentation in digital circuit for achieving the multimedia effect in teaching that combines text, auditory information, visual images and animation. The principle underlying my design was simple enough, but it was characterized by lucid conceptualization, pragmatic functions, and vivid forms. The project received very positive evaluations (84/100) from my advisor and it has been utilized as a subsidiary teaching instrument for sophomores in their digital circuit experiment course. Upon graduation, I was recruited by Beijing International Switching System Corp. Ltd., the first and the largest German SIEMENS JV Company, where I was responsible for the engineering planning of EWSD (The SIEMENS Digital Electronic Switching System, a uniform family of switching products). During this period, by relying on the solid theoretical foundation that I constructed in my undergraduate studies and on my capability for efficient self-education, I have executed all my responsibilities with satisfactory results and my hands-on abilities are correspondingly improved.

Ever since I developed my immense interest in Digital Image Processing as an undergraduate, I have been following its technical development with close attention over the years. From its establishment 40 years ago to the present, the subject of Digital Image Processing has experienced a steady and sustained growth. By its very nature, the field is application-oriented. The main objective is to develop tools and the techniques for analyzing pictorial data generated in a diverse range of application domains. In particular, with the introduction of high-quality imaging cameras and computing workstations at relatively low costs, image processing applications have sprouted in a variety of domains, such as electronics fabrication and testing, document processing and analysis, etc. With the availability of good quality, affordable cameras and image processing hardware boards, a PC can be converted into a complete image processing workstation at a moderate expense. This will undoubtedly lead to a much wider range of new applications of image processing. In view of the inexpensive hardware and the new applications that steadily emerge, we can predict that digital image processing will play an increasingly important role in the scientific and technological development in the future.

Nevertheless, the research carried out by China in this field is relatively backward. Usually, the already limited research fund is devoted to the short-term projects that produce immediate economic results, a fact that seriously impedes the long-term development of the industry. In addition, an average student like me who is interested in this area frequently have no access to the first-rate professional instructions and the corresponding academic milieu, or the opportunity to apply theory to practice. Therefore, I deem it a sensible decision to undertake an advanced degree program abroad.

xxxx Technological University is well known for its excellence in the E.E. field, complete with an accomplished faculty and modern research resources. These should set a good stage for me to exercise my mental power and diligence. Ideally, I would like to enter a Ph.D. program. If I am accepted, I am confident that, with the seasoned guidance from senior professors, I will be able to significantly enrich my knowledge, enhance my expertise, and sharpen my research skills in the E.E. field, especially in the areas of video/image processing and communication that have many characteristics in common and share many important principles.

On my journey of life, I am bound to encounter a lot more challenges and opportunities. But as long as the value of my life can be ultimately fulfilled, all the hardships and strenuous efforts are worthwhile. I strive, therefore I am joyous.