**Applied Program: Electrical Engineering /ECE/CS**

I love music. Whether when I stand in the chorus on the stage of Beijing Concert Hall and interpret the imposing and resounding “The Yellow River Cantata” or when I sit in the auditorium and enjoy the thrilling symphony of “Fate” by Beethoven, I can always feel the uplifting qualities in them which stimulate me to face up to challenges, brave difficulties, and march from one success to success. My father is a senior expert in satellites and communications in the country. I have grown up witnessing him and his colleagues send rockets and satellites one after another into the boundless universe. He has ever told me, “The development and power of a nation is determined by those of its science and technology.” Under the influence of his verbal instructions and personal examples, I have taken Electronic Engineering as my major in Beijing Polytechnic University and have make it my career to which I will devote my whole life.

Einstein remarked that genius comprises of 99% diligence and only 1% inborn talents. I am fully aware that to make extraordinary accomplishments, I must make extraordinary efforts. Therefore, in addition to studying specialized courses to lay a solid theoretical foundation, I spend much of my spare time consulting a large number of relevant materials in libraries. I have attached particular importance to developing my capabilities to analyze and solve problems. In order to absorb more professional information from the West, while continuing to perfect my Russian language which I had been learning for 7 years, I started to learn English. Through unremitting and painstaking efforts, I have now passed the requisite National College English Test-Band Six (the most difficult standard English proficiency test for Chinese college students of non-English majors). My English language competence can now enable me to learn advanced concepts and technologies directly from English materials (However, as my English classes prevented me to attend all the classes in my course Stochastic Process, I failed to achieve a very satisfactory result in this course.) Besides, I have taken many relevant optional courses, such as Object-Oriented Programming, Database Principles and Application, C++, and SQL Language, and have applied them to specialized courses like Digital Signal Processing and Digital Image Processing. My strong yearning for knowledge and assiduous and enterprising attitudes towards studies have ensured me being constantly among the top students of the class. Except for the sophomore year, I have won scholarships throughout my 5-year undergraduate program, ascending from third-class to second-class and finally to the most important Excellent Student (Sony) Scholarship of Beijing Municipality, which is the highest award for undergraduates.

The first research in my life has been rewarded with rich fruits. In my thesis entitled Researches on Data Security Mechanism in the State-Owned Assets Information Management System of Beijing Polytechnic University---Also on System Design Conceptions and Threads of Thoughts and Technical Means of Their Realization, considering the development of internet/intranet, I adopted the client-server pattern and built a web browser/web server-based web database management system with special emphasis on the design of web database access security mechanism. In the IT context in 1998 when adequate importance had not been attached to network security, the design has shown much foresight and it was very positively commented by the academic committee of my department. Till now the system has been put to application in my former university for three years. It has won favorable comments from the leadership of the National University State-Owned Assets Digitalization Group and has been popularized in universities across the country.

After graduation, I entered Digital China Limited of China Academy of Sciences, specializing in research and development of network equipment (primarily in the overall design and realization of communication protocols). Through tense and substantial work assignments, I have improved the combination of theories and practice and accumulated many experiences in research and development. The successes of four major projects and the “Golden Horse Prize” awarded by the company are testimonies of my hard work and the recognition I have won from the company. Thanks to my excellent work performance, I have represented the company and attended The Fifth Cisco System Users Symposium, Windriver Real Time Embedded System Workshop, China IP Voice Network Symposium and Exhibition, as well as press conferences of new products of major enterprises home and abroad. I have benefited greatly from the exchanges of experiences and technologies with representatives of each meeting.

Later I was assigned as the chief technician in the design and realization of VoIP(Voice over IP) software based on H.323 protocol clusters. Undertaking the biggest project ever in my work, I have undergone considerable technical, mental, and physical challenges. After fully examining the original protocols in English, my research group made organic combination of the protocol modules and solved several knotty technical problems. For example, we successfully coped with jitter and buffer of voice data in the network. Under the precondition of realizing appropriately the prescribed technological processes of the protocols, we provided multi-voice interface and coding patterns and achieved compatibility with voice equipment of different producers, thus providing sufficient Qos Guarantee for voice information. After 16 months’ efforts, we finally developed a set of VoIP network equipment based on RTOS platform which has passed test and gained the network admittance certificate. Later the project has been adopted by the network research and development center as a specimen of most valuable diachronic data and reference pattern to conduct conduct risk, cycle, and workload evaluations for subsequent projects.

Those achievements in my career have by no means made me self-complacent. Instead, in order to further improve myself，I have been attending a series of graduate courses in Tsinghua University. Through learning more advanced courses, I have become increasingly aware that I still have to lot to improve in order to truly consolidate my professional foundation. I find myself confronted with numerous challenging questions, such as optimization of communicative mechanisms, personalization of communication terminals, intelligent network administration, and intelligent designing technology. At the same time, on the Chinese market, about 90% of the high-end network equipment used are foreign products and products in uniquely Chinese brands are few, which means that China is very deficient in high-level technological specialists. In my experience of undertaking international technical exchanges and cooperative projects, I have found that American companies like Wind River and Trillium develop their VoIP products on a much deeper level to make their products more geared to the specific needs of clients. Their design has reached the level of complexity and depth far beyond those of Chinese products. This not only requires further understanding of the protocols on our part. More important, we need important guidelines from advanced theoretical knowledge.

On the basis of the foregoing factors, I deem it extremely necessary for me to pursue more advanced education in the University of Berkeley in electrical engineering. Your esteemed university fascinates me with its unparalleled academic reputation, its strong faculty in electrical engineering as well as its world-leading research achievements. In my future degree program in EE, I would like to focus on two main areas—wireless communications and digital data communications. I expect that through my sustained and diligent dedication to advanced coursework, I can find out the latest technological developments in my interested fields. Those latest developments will initiate me into much broader realms of electrical engineering and will keep me exposed to new concepts and perspectives in the international academic. After completing my degree program I will return to China where I can contribute my own efforts to the scientific and technological advances of our country by following my father’s footsteps. I believe that I have an important role to perform in promoting the technical level of China’s IT industry as a whole.