**Program: Mathematics**

“Go face the force of the wind, and fight the slash of the rain, the palm of your hands will thicken, the skin of your cheeks will tan. But you will walk like a man.” This is the motto that has always endowed me with important inspirations, whether on the occasion when I led my departmental basketball team to win the all-university championship by scoring the winning goal minutes before the referee blew his whistle at the end of the match, or on hundreds of occasions when I compiled computer programs to realize my mathematical conceptualizations. This remark has become a constant source of motivating force that has infused into me the energy to forge ahead relentlessly. This determination is reinforced by the words uttered by Maximus, the protagonist in the Hollywood movie Gladiator, on his horse before the battle: “What we accomplish today will resound with rotundity in the eternal future.”

I cultivated an intense interest in mathematics as early as my elementary school. Sometimes termed as the “gymnastics of logical thinking,” mathematics naturally became my central focus of study as I achieved consistently exceptional scores in every final-term examination, earning the nickname of “mathematics prodigy.” At middle school, I represented my school to participate in the national Mathematics Olympics Competition to win a second-class award. As soon as I had access to computer in the senior middle school, I became enchanted with the computer programs that possessed equal logical beauty as the mathematics vocabulary and language. Consequently, when I entered Nanjing University where I studied at the Department of Mathematics and Computer Science, I felt as if plunging into a vast reservoir of knowledge that allowed me to absorb precious learning to my heart’s content. Not satiated by the theories of mathematics taught in class, I attended many courses in computer theories and application as my subsidiary program, courses that included Data Structure, Operation Systems, Assembler Language like Programming with C Language, Multimedia & Internet Technology, and Mathematical Analysis. Those courses helped to develop my enthrallment with abstract symbols, figures, vocabulary and language.

Although mathematics as a specialized subject is a purely theoretical discipline, I paid much attention to the improvement of my ability to apply mathematics to the solution of practical problems. In my spare time, I liked to study mathematical models and algorithms, trying my hands at their realization by compiling some computer programs. Two classmates and I formed a mathematical model construction team and we researched on the subject of Economic Growth Model, which focused on the modeling of economic growth by applying differential equations of mathematics. My sound ability in programming was fully manifested in compiling codes. My involvement in this undertaking not only deepened my understanding of mathematics, but also perfected my computer techniques. This project was awarded second-class prize of Mathematical Modeling Competition among the colleges and universities in Jiangsu Province.

Another thing that I like to do in my spare time is learning both the hardware and the software computer skills. So far, I have passed the Grade III Computer Test and Intermediate Level Programmer Test, achieving qualification certificates from large internationally-established software and hardware companies such as MICROSOFT, CISCO, SUN, and GIGABYTE. Among the seven tests for Microsoft Certified System Engineer, I achieved the highest scores in three tests in the entire city of Nanjing. During the two years in which I acted as chairman of the Computer Association of our university’s Students Union, I organized several major campus events in which, by exercising my special talents in computer technology, I launched computer training programs to students of non-computer majors. Within a short period of time, the association developed into the largest student organization on campus and under my leadership more than 400 members devoted themselves to honing their computer skills. Besides enhancing my organizational capability and my leadership, I was awarded the honor of the Outstanding Student Organization Leader, an honor which made me very proud of myself.

In order to test the validity of my knowledge, I attended many off-campus seminars and press conferences at product and technology promotions. In addition, I have published approximately 20 papers featuring my research findings in professional computer journals including Microcomputer, Computer Journal, Computer Lovers, etc. During holidays, I have worked at a number of major computer companies. At HP China, I was responsible for providing clients with solutions to the information platform and for post-sale services. At the User’s Software, China’s largest financial software company, I was in charge of offering solutions in the field of e-commerce and office digitalization to government organizations, hotels and other institutions. I also conducted extensive internship at the Software Lab of Landsoft Company. Those activities all contributed to strengthening my ability to study solutions. So far, I have acquired successful experiences in more than 10 cases. Last but not least, I am now working part-time at Nanjing Milkway Network Transaction Center offering training courses in MCSE.

Nevertheless, I am painfully aware of the fact that in China one has very limited chances to apply practical mathematics skills and to experience advanced computer knowledge. Although I have received high-level professional trainings in China, I still face the predicament resulting from the break between theory and practice when I come to tackle practical problems. I have been made sharply aware that my systematic and formal trainings are far from sufficient. Hence, my determination to go abroad to seek further studies at some prestigious universities with mature theoretical research and advanced technologies.

When I studied multimedia and Internet technologies, I discovered that almost all the most advanced multimedia communication technologies and the most mature information platform solutions are derived from Europe. It is frustrating to find that in present-day China in-depth research in these areas is virtually non-existent. Under such circumstances, as an aspiring young student, I have no choice but to pursue advanced trainings in England to study the most updated information technology. Among many prestigious European universities, the University of -------------- comes on top of my priorities. My penchant for English universities is not only related to the fact that their long-standing academic tradition, which is universally acknowledged, and nurturing academic environment can satisfy my longing for a quality education. It is also because I, as a person who started learning English in the second grade of my elementary school, have always cherished a special love for English culture. Nothing can delight me more than going to the country where great authors of such ever-lasting literary works as Wuthering Heights, Jane Eyre, and David Copperfield were born to directly observe, to experience to learn, and above all, to understand.

It is beyond doubt that Europe plays a leading role in the world in the field of communication technology. The communication media in the future will complete incorporate the visualized, multi-platform and highly efficient technology. The problem of bandwidth in data transmission has always been the major obstacle in the development of this technology. I am interested in the field of data compression and de-compression by means of optimized algorithms, a field of research in which lies the ultimate solution to the obstacle in data transmission. I am soberly aware that I am bound to encounter a series of challenges and difficulties in my future academic pursuit abroad. I have to learn a great variety of theories and knowledge in my chosen field on one hand and to face fierce competitions on the other. It is conceivable that I will come under significant psychological pressure. But I am equally convinced that, by availing myself of the excellent intellectual environment and lab facilities of your esteemed university and closely following and grasping the most sophisticated computer technology, I will be able to achieve constant improvement of my abilities on both the theoretical and practical levels. Like Maximus, I have the implicit faith that the efforts that I undertake today will “resound” with lasting echoes in my future.