I will be extremely thrilled and gratified to see someone become more effective in his/her work by using my software or technology developed. It's my deep-rooted passion to learn the principles behind software and to further upgrade it. For this reason, I will further my study in the various areas such as software engineering, artificial intelligence, and natural language processing out of my interest and serving for my career goal. After obtaining master's degree, I hope to engage in software development related work, accumulate rich practical experience, and finally start my own business in the Internet industry. I have this plain but hard ideal to make people around the world live better with software.

Substantial resources provided by Nanjing University facilitated me to learn a wide range of knowledge, such as the application of various computer language like java, C, C++ for future programming, online course of Machine Learning, basic concepts of data structure, computer networks and algorithm for future scientific research, and the detailed software development process like demand analysis, architecture design conducive for a deep understanding of software engineering.

I also enjoyed exchanging and cooperating with students from diverse backgrounds. For instance, I teamed up with two schoolmates to participate in the NAO robot marathon programming competition, and won the best creative award. By successfully writing a set of programs in a very short time to realize our expected functions, I found myself adjust well to the high intensity of programming pressure and realized the important role as a team player. Moreover, I began to enhance my ability to compete for the role as a leader in a group. After about one year, I found the Citi Cup competition and soon established a team with schoolmates from the business school. As the leader, I served as a bridge to prompt the communication between our teammates. I conveyed our needs and targets to schoolmates from the business school, and then communicated with the schoolmates responsible for software development of the specific implementations. I, except for architectural design and implementations, also had to grasp basic financial knowledge shortly to ensure the accuracy of our development. With mutual efforts, we won the national fourth place and the best creative award in the competition.

Plentiful research tempered my problem-solving ability. Last September, I joined professor Feng Liu's Reinforcement Learning group to study related problems of POMDP and propose suggestions for algorithm development. Our group mainly concerns with how software agents ought to take actions in an environment so as to maximize some notion of cumulative reward. Curious to figure out the problems with the U-Tree algorithm, which gave worse experimental results than others did, I began to make careful analysis of each process of the algorithm and carry out a series of experiments, finding that this algorithm used redundant data and adopted all-permutations to obtain the optimal result, which greatly increased the algorithm's time and space complexity. Through repeated theoretical assumptions and experimentation computation and by adding heuristic search and data weight to the algorithm, I proposed a new algorithm called ODWU-Tree, which generated better test results. The training efficiency of the ODWU-Tree is 2.55 times faster than that of U-Tree. I found that a detailed and rigorous analytical attitude and the courage to take innovative

methods did matter much and would bring enormous success to our future work. We wrote a thesis paper based on this project and it had been published successfully. With the previous algorithm improvement experience, I was much quicker at Professor Mingxue Pan's group for software testing and for a novel method for GUI testing. But the challenge lay in the new method's requirement of a mixed knowledge of machine learning, image recognition and other related areas. I spent abundant time figuring out these areas and then constantly carried out the programming experiment. Finally, I succeeded in proposing an efficient method for GUI test. Currently I have wrote a thesis paper for this project and submitted to a famous anonymous conference.

Rich project experience won me the opportunity to do summer research in Professor Qiu's SyGuS (Syntax-Guided Synthesis) project team in Purdue University, West Lafayette. This team mainly researches Program Synthesis and our project focuses on exploring new methods to SyGuS problems. During that time, I was responsible for software development and participated in the discussion and improvement of the new method, using java language and Z3 SMT solver (z3 is an excellent SMT solver developed by Microsoft), which can check the satisfaction of logical expressions. We unavoidably faced many challenges during the development process, like the incompatible use of Z3 in the process and low efficiency in the implementation of the new method. To solve the incompatibility problem, I rewrote most of Z3's functions and its core algorithms. Besides, I proposed the idea to add multithreading to the method and optimized the algorithm included. After applying the idea, the accuracy of the method was improved by 20%. On the other hand, the performance saw a major improvement, as the whole processing time was reduced by 70%.

Step by step, I secured a job as a software engineer in SAP labs China. By quick learning, I managed to adjust myself to the agile schedule in the industrial production cycle, attending the daily Scrum meeting and sharing developing progress in Kanban style. I got to know how developers and testers together ensure the quality of a product and understand the actual process of software development. Besides, I came to be aware of the possible questions in enterprise software development with shorter development cycles and various tasks.

Experience accumulated through both work and academic study enabled me to make rational analysis. Above all, I am embracing an increasing interest in mobile development during my internship at SAP. When migrating complex mobile systems, I found it challenging to refactor the system architecture according to different platforms in order to maximize performance. I want to figure out how changes in details may affect the whole system and its evolution. After a detailed exploration of your MS in Information Technology-Mobility program, I am particularly attracted by the Data Processing, Storage and Retrieval research theme, which can facilitate me to apply what I have learned to real system development. Besides, the various interesting courses such as The Mobile Ecosystem can also provide me with novel insights into mobile development. All these make this program a desirable one for me to come closer to my career goal.