## Statement of Purpose

When my parents bought me the first computer 17 years ago, I was deeply attracted by this very original machine companied me throughout my childhood. My real first taste of unforgettable joyfulness began in a computer class at an elementary school. Our teacher installed a video game in all the machines without informing everyone. When other classmates were only able to follow instructions and type in alphabets, I had already searched the MS-DOS system and played the hidden game. This special skill earned me respect from the classmates and great satisfactions, which inspired my passion to computers.

As time passed on, I was enrolled to the best high school in our city. With my ascending interests in mathematics and computer technologies, I joined the Olympiad informatics contest team and improved my knowledge in computer programming. During the three years, I learned basic algorithms such as depth first search, built up my self-learning, researching and document reading skills step by step, and gained teamwork skills during frequent academic communications with teammates. In addition to learning basic/advanced information and skills required for a professional computer scientist, I also acquired abilities with time management, requirement interpretation and work allocation during the intense contests. Most importantly, these experiences allowed me to understand that algorithms and data structures are the core elements of computer science.

In 2014???, I was granted my bachelor’s degrees in computer science from both George Mason University, Virginia and Southwest Jiaotong University, China via a dual-degree exchange program. In this program, I completed 90 credits in George Mason University within 2 and a half years and was awarded Dean’s List in 2013. At George Mason University, I got intensive training to update my concepts and knowledge in computer science and seized multiple opportunities to adapt theoretical knowledge to application. For example, like most fresh Chinese students who had a hard time to figure out the best schedules for course selection or worrying about various deadlines for school activities, I had similar experience. To overcome the hassle, I designed a software application to automatically generate all possible class-scheduling solutions based on customized user preferences, such as not to take morning classes or condense all the classes into 4 days. To begin with, I created two web crawler programs, one for gathering data related to George Mason University instructors from ratemyprofessors.com, the other for collecting course data from the university website, and yielded useful information by analyzing the DOM trees from the data collected. Then I adopted an evaluation algorithm from previously collected information to calculate the value of a specific timesheet based on the preferences given by the “users”, and run a simple searching algorithm with a few pruning strategies to generate the top schedules. Even though I did not release my work to public for university-network security reasons and intellectual property limitations, I enjoyed the whole process of solving problems.

Upon my graduation at George Mason University, the office of international programs and service sent an invitation to my parents. As much as they are thrilled to visit my campus and the United States, they were unable to speak English and they had to deal with the challenge of flight transitions. With this in mind, I decided to start a new web service that would help people who are traveling worldwide, but not good at English. The web service was designed to provide a platform so that users can post their travel information including itinerary and final destination to other passengers or airport employees who can offer a help. This service also helps users to identify passengers to the same destination on a same flight or passengers willing to escort small pets overseas. Just like Airbnb, this application will provide a new channel for people to help each other and potentially increase people’s social connection.

So far, I have not been able to make this project a practical application. Due to the nature of this application, we need to store and manipulate large amount of data, such as saving users’ behavior history and analyzing statuses of the users so that they can be fed with the most useful information; or dealing with the bandwidth and other system performance problems. These require the ability to create magnificent systems, manage large databases, and there will be more to do. I would dream that one day the USC data science program would help me to finish up my projects. More importantly, USC attracts me due to its great environment where students from different areas of study and cultures can work together easily. I happened to know one of the USC interactive media alumni, Jenova Chen for a long time because he is now a one-of-a-kind game producer in China. While at USC, he teamed up his fellow student Kellee Santiago, who made an inspiring speech on the TEDxUSC event about how video games can be artistic, to start a game design company and made great achievements in that field. I regard this as an excellent gift from USC because it is there, no matter where you are from or who you are, as long as you have great ideas and dreams, you may find that your dream come true.

Regarding my future plan, I would like to become an industry expert to bring people convenience in daily life with data-centric technologies, which requires me to be a leader of a group of talented people to make it happen. I used to be uncertain of how to approach this goal, until I saw the Master of Computer Science program with a focus on data science at Viterbi School of Engineering, USC. After careful reading every word on the website, I believe that this is where I should go, given what I had done and what my passion is for – programming, algorithm designing, data management, software performance optimization, and leadership. With 8 years of preparation in computer science, am confidentwilland devote my contribution to

I have eventually found what I am mostly interested in and I am prepared to devote myself into the area of data science to bring the world more valuables. I would like to support myself to learn the newest computer science theories and technologies through the Master of Computer Science program at University of Southern California. The variety of projects and specialized curriculums in the program strongly attract me.