Statement of Purpose

Name: First Last January 4, 2010 Civil Engineering (Transportation specialty)

Research has shown that, traffic safety, traffic jam and environment pollution are the three major problems that haunt the current international transportation field, especially the traffic safety. Yet, after the road management is improved by intelligent transportation technologies, the annual death toll caused by traffic accidents could be reduced by more than 30% while the service efficiency of vehicles could be enhanced considerably. 21st century is an epoch of intellectualized road traffic with wide development prospects. I was more aware of the necessity of using advanced transportation techniques to guarantee the traffic safety when I was involved in the project of Emergency Evacuation of Gas Station Accidents, which also consolidated my resolution to engage in the research of this field.

To devote myself into Transportation Engineering is not my primary selection but the wisest one. Majored in Computer Science in my undergraduate program, I thought I would be an excellent programming engineer by virtue of my precise logic thinking coupled with the capacity of programming. It was not until the course of GIS in my senior year that I was deeply attracted by transportation and vehicles, which motivated me to choose the program of Automobile Engineering for my graduate study. The first days at a new major were not easy for me, for I had to learn all the basic profession courses by myself in order to fill my vacancy in automobile and transportation. Although I seldom had time to rest, immersing myself in the classroom, it was just this period that constituted my systematic understanding of vehicles and transportation as well as my burning interest in this area. Since this burning interest turned the arduous learning into a delightful journey, only after a half year, I had distinguished myself in study among the students in my department.

My endeavors paid off when my supervisor recognized my capacities and gave me an exceptional permission to join the Project of Emergency Evacuation of Gas Station Accidents in the second semester of my graduate program. With the guidance of my supervisor whose research direction was Road Traffic Safety and ITS, my research in Transportation Engineering had evolved from a pure learning into an exploration. When I was preparing for my first paper, I found myself confronted with plentiful and arduous obstacles, ranging from information
collection to mathematical modeling. Thus, I worked deep into the night, almost being the last one to leave the building every day. Thanks to the mathematic knowledge I accumulated in my undergraduate program of Computer Science, I adopted the principle of minimal cut set, which was considered to be complex but comparatively easier for me. Hence, I had completed the preliminary sketch of my paper smoothly and proceeded to the next challenge—how to give a clear and correct expression of my research in English and compose a paper with high standard. To conquer this obstacle, I spared no effort to search for materials and practice translation from the words to paragraphs. This process fostered my capacities of independent problem analyzing and solving, which were the instrument of my success in accomplishing the first paper during my graduate program. Later, this paper was collected by the 2ed International Conference on Risk and Reliability Management, in which I gave a detailed presentation in English according to my paper and answered all kinds of questions of the attendees. This experience provided me with the opportunity of international academic exchange and paved me the way for my future research.

In the project of Emergency Evacuation of Gas Station Accidents, we carried out a careful investigation on the traffic flow and traffic environment surrounding the selected spot of the gas station, conducted time and validity estimation based on the current situation. What was more, the following simulation experiment showed that, in the VISSIM simulation experiment environment, by changing the traffic signal information of the surrounding area rapidly and effectively, we could accelerate the whole evacuation process and drastically reduce a series of harmfulness resulted from the accidents. It was inspected that an efficient intelligent control and adjustment of the surrounding traffic could decrease the hazard of traffic accidents. As for the present state of China, most parts of our country have not established a perfect intelligent transportation system. Intelligent transportation system, together with its relation with traffic safety research still leaves much for me to supplement. After graduation, I dream to be a teacher in Transportation Engineering, making valuable achievements in this field and passing on the research results to the interested students.

Since the study on Transportation is still far behind the world’s leading position, it is necessary to learn the latest knowledge and technologies from the developed country so as to promote the research level. My desire to make my own contribution to this field evokes me to go after more
advanced knowledge. United States, who has long played a leading role in the research of Transportation, is just the best choice to further my education. Now I could sense my strong aspiration for the study of Transportation Engineering while your esteemed university is just prestigious in academic community for the profound theoretical deposits and competent research teams. Meanwhile, the new conceptions and research modes in Transportation also arouse my pursuit of an advanced education. For all these reasons, I sincerely hope I could be bestowed with a valuable opportunity to study in your renowned university. Under the assistance of your cultivation, I am convinced that I will definitely find my own stage in Transportation Engineering.

1. One-page Statement of Purpose is strongly encouraged. Statements must not exceed 1.5 pages in length.
2. Format: 12 point Times New Roman font, 1-inch margin on all sides, 1.5 line spacing
3. Address the following in the Statement of Purpose:
   a. First paragraph: Introduce yourself, provide a brief background and state your immediate career goal/objective
   b. Second paragraph: Explain what led you to your interest in specific studies.
   c. Third paragraph: If applicable, provide a brief description of your engineering practice, e.g., jobs, internships, etc.
   d. Fourth paragraph: Briefly describe any other experiences that either helped you to decide on graduate studies in your designated area or helped to prepare you for graduate studies.
   e. Closing paragraph: Very briefly describe your long-term career goal(s).