Statement of Purpose

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

The belief that an education is most valuable when it is used to serve one’s community has been instilled in me. This conviction and a natural aptitude for science and mathematics convinced me civil engineering was the most fitting career for me. In fact, they continue to be the driving forces in my pursuit of academic excellence as a senior at the University of Missouri (MU). I desire a degree in civil engineering not only because it is the most fulfilling way I can exercise my natural talents as a scholar, but because it also gives me the opportunity to solve challenges directly impacting my community.

Upon receiving my Bachelor of Science in Civil Engineering, I plan to continue my education by pursuing a Master’s degree in Civil Engineering in the Geotechnical specialty. My interest in geotechnical engineering was sparked by topics such as the theory of consolidation, shear strength, and ground improvement methods introduced to me in my fundamentals of soil mechanics course. It was further cultivated when I began attending seminars presented by the geotechnical engineering program and participating in undergraduate research. I am interested in a broad range of topics including ground improvement methods, earthworks, and seismic response and would like to further my knowledge of concepts similar to these through my graduate program of study.

During my four years at the University of Missouri, I have gained the qualifications and work ethic necessary to be a successful graduate student. These characteristics are exemplified by my contributions as an undergraduate research assistant in the geotechnical engineering program at MU. I began conducting research during the summer of 2008 with Dr. Greg Greene and have worked on projects focusing on driven pile foundations and slope stability. Currently I am aiding in the development of shear strength resistance factors for Load and Resistance Factor Design (LRFD) methods for slope stability. The goal of this project is to convert the traditional Allowable Stress Design methods currently employed by the Missouri Department of Transportation to the more efficient LRFD methods. This will ensure appropriate levels of reliability across slope designs as well as reduce slope construction expenditures by eliminating over-conservatism. Conducting research has required me to extend my knowledge of geotechnical engineering and statistical concepts which I have not been taught in undergraduate courses. It has given me experience with geotechnical lab testing, large scale lab experiments, field work, and probabilistic geotechnical software. Being an active undergraduate researcher has held me to a level of responsibility and accountability similar to what I expect to encounter in graduate school. Lastly, as a Master’s student my goal is to make a direct contribution to the growth and advancement of the field of geotechnical engineering through my research and studies.

Following graduate school, I would like to establish a consulting career specializing in geotechnical engineering. In this position, I will utilize the knowledge and problem solving skills I have developed as a student to provide solutions to a vast array of geotechnical engineering challenges. After gaining essential professional experience, I want to acquire my Professional Engineer license. It is my goal to use my expertise to provide innovations to the field of geotechnical engineering and more importantly serve the public in a practical way.
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).