

The author of *Nothing for Ungood* (2009) cautions the reader: “Despite warnings to not try to learn German first, it teases some brave to maybe try it.” This book sparked my interest in languages and this quote encouraged me to try to learn German, and then to try to learn how to conduct research. After one year of studying in Germany and then two years of conducting research at the University of Texas at El Paso (UTEP), one of the nation’s leading engineering and research institutes for Hispanics, I definitely know I want to continue my academic career and immerse myself in graduate school at the University of Michigan in Computer Science. My goal is to attain a PhD in Computer Science; this is the best way that I can specialize in my two favorite fields: linguistics and technology. When I become a researcher I want to benefit the community by developing new ways to process language. I know that my research will make communication between humans and computers, or between humans, easier.

Accordingly, I aim to attain a PhD in Computer Science and specialize in the field of Natural Language Processing. My interests in language and technology began in my youth and continued ever since. Raised by Mexican parents and being a first generation US citizen, I grew up speaking both Spanish and English at an early age. When I got to high school, I took French classes, and it is at that time that I started to notice how languages are different and yet very similar in some respects. After I graduated from high school, I went to school for one year in Germany, where I took classes in several fields such as computer science, geography, and history. When I returned to Texas, I started my studies at UTEP, majoring in Computer Science, and became the Vice President of the German Club, where I got to teach students about the European culture and the German language. Subsequently, I started working at the Army High Performance Computing Research Center (AHPCRC) at UTEP as a Research Assistant. This is when I started to get absorbed in research, and got to learn how to program emerging parallel computer architectures and to evaluate the performance of HPC codes.

Some of my academic experience is associated with the research that I want to do as a graduate student. During my sophomore year I took a course in Monte Carlo algorithms at Oregon State University, where I learned about artificial intelligence, statistics, and programming. During that course I worked on a program that is used to simulate the extinction of a species in a specific environment. A year after that, I participated in the 8-week long AHPCRC 2012 Summer Institute for Undergraduates at Stanford University, where I took classes in the fields of mathematics, programming, and simulation models of real objects. At Stanford, I worked on a project that involved the simulation of rigid bodies on android devices. Being an avid contributor to many projects helped me become accustomed to use my programming experience for research. Working as an AHPCRC Research Assistant at UTEP taught me how to conduct experiments, collect experimental data, analyze the data, and present it in an effective manner. During a Summer 2013 internship at ExxonMobil, while building applications that organized critical data for the corporation using Oracle and C,. Through this experience, I learned about Human Computer Interaction (HCI) and how users are influenced by the employed language syntax and the visual structure of the applications.

As a result of my interests, I would very much like to work with Professor Qiaozhu Mei on his work concerning information retrieval and natural language processing. I am particularly attracted to some of his publications, for example, "Unexpected Relevance: An Empirical Study of Serendipity in Retweets," in which he discusses the diffusion of information and the effects of microblogging. Another publication that I find appealing is "Voice-Dictated versus Typed-in Clinician Notes: Linguistic Properties and the Potential Implications on Natural Language Processing," which compares hand-written clinician notes with voice-dictated notes.

The graduate program at the University of Michigan will be a great fit for me. University of Michigan has the best laboratory equipment in the nation and it addresses today's most important technological challenges. The University of Michigan has faculty who are actively engaged in research and work on projects that affect millions of people across the globe. Also the EECS program is ranked as one of the best in the nation. These facts make for an environment where it will be most supportive to do research and one where I will be able to take part in some of the most interesting projects in the field of Natural Language processing.

Because programming and languages are my passion, I want to continue my academic career by doing research in this field. With the experience I have obtained as an undergraduate student, I have the confidence and the ability to commit to graduate school and pursue a PhD degree in Computer Science. I know that University of Michigan's graduate program in Computer Science will help me accomplish my goals and give me the tools to make communication between humans and computers easier. I look forward to joining the university as a graduate student in the following year; it is an opportunity I eagerly await.