**Erick Garcia**

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Technology, from my perspective, is the most fascinating thing in the world. It has become an integral part of society by making our daily tasks much more simple and convenient and developing solutions to some of the most important societal challenges. My name is Erick Garcia, currently an undergraduate Computer Science senior student at the University of Texas at El Paso. My passion for computers started in my early days at home, where I had access to my father’s computer while he was on business trips. I started playing with operative systems with Windows 98 and continue to enjoy do so with different Linux distributions. Since a very young age, I volunteered to fix computer-related problems at home.

More recently, I have thrived on the knowledge acquired on my undergraduate studies. I started my Bachelor’s in Computer Science as an Associate of Arts in Computer Science in El Paso Community College. I then continued with my upper division courses at the University of Texas at El Paso (UTEP). I was thrilled to be invited to join the iLink’s research group led by Dr. Villanueva Rosales at UTEP. iLink aims to improve the efficiency and effectiveness of the discovery, integration, processing and interpretation of scientific data. As part of the iLInk group, I created a Semantically-annotated website for to expose our research resources that are dynamically populated from heterogeneous sources. This project aims to expose our research resources for human consumption, while increasing the discoverability of resources by machines (e.g search engines) using metadata. I am currently working on a web-based repository that will allow scientist to exchange data for the integration of water models.

During the summerof 2015, I was accepted inthe Army High Performance Computing Research Center’s summer program at Stanford University. I had the honor to work under the supervision of Doctor Patrick Hanrahan and his research group which focused on Image Processing and Visualization. During this internship, I participated in the project of Real-time Computer Vision on Quadcopters. The objective was to embed custom, optimized C image processing code to the ARM processor in the Drone. Working with Doctor Hanrahan was both a challenging and rewarding experience in which I got exposed to Linux based operating systems, parallel computing and different optimizing algorithms used for image processing.

I intend to pursue a Master’s in Software Engineering at the University of Texas at El Paso to further improve my developer skills while also working on research projects. I am highly interested in specializing in Cyber Security, as the world becomes increasingly interconnected and sharing data is getting easier, it is fundamental to preserve the integrity of their system and its users information. I would also like to integrate my knowledge in Computer Science and Software Engineering to contribute on interdisciplinary projects, since most of the bigger problems requires the contribution from various fields to find a viable solution.

Through my research experiences and coursework, I have gained valuable technical skills and improved my teamwork and communication skills. I have worked in projects using the following programming languages: C, C++, Java, Php, Javascript and assembly. I have also experience in creating Database Content Management Systems, Dynamic Websites and working with Linux-based operating systems.

I presented my research work from iLInk at the CAHSI conference at Puerto Rico and attended the HEENAC conference at Pasadena. In both conferences, I heard about the GEM fellowship and it peeked my interest. It is a great opportunity for those interested in graduate school, and with the foundation acquired through the rigorous CS program at UTEP, and my various research experiences I think would greatly qualify to be in a MS program. The MS in Software Engineering that I plan to earn at the University of Texas at El Paso will undoubtedly provide me with the right knowledge, skills and experience to pursue my goals fullest extent. I sincerely thank you for the opportunity of earning this fellowship.

Sincerely,

Erick Garcia