JAVIER MARROQUIN

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OBJECTIVE

To obtain an Engineering position in a company that will allow me to exercise my technical skills by creating and supporting their products.

Education

Master of Science in Computer Science

The University of Texas Rio Grande Valley, Edinburg, TX Anticipated Graduation Date May 2017

Bachelors of Engineering in Computer Engineering (Software track)

The University of Texas-Pan American, Edinburg, TX   Graduation Date: May 2015

GPA: 3.71

Relevant Courses Taken

Internet Programming, Database Design and Implementation, Systems Programming, Algorithms and Data Structures, Computer Science 2, Game Development, Senior Design, Software Engineering, AI Programming,

Technical Skills

Languages:	C++, C#, HTML/CSS, MySQL, Java, JavaScript, Objective-C, PHP, Python
Software Used:	Adobe Photoshop, Adobe Illustrator, Adobe Flash, Adobe Dreamweaver, Cadence, Microsoft Office, phpMyAdmin, pygame, Unix terminal, Xcode, Unity, Visual Studios
Certifications:	Adobe Certified Associate (Adobe Flash, Adobe Photoshop, Adobe Dreamweaver), Internet and Computing Core Certification (IC^3), Certified Internet Web Professional Program (CIW)
Platforms:	Linux, Mac OS X, Windows XP, Windows Vista, Windows 7, Windows 8, Windows

Server 2008

Work Experience

Teaching Assistant   **Fall 2015 - Present**

- As a TA I was assigned to a set of graduate and undergraduate courses. For these, I was in charge of grading student assignments, helping with the creation of the assignments, tutoring students in need of help, and lecturing a few sessions when needed.

Android Developer   **Summer 2015**

- Worked with a professor at UTPA in creating a simple camera application. I handled the programming, debugging and interface design during the course of the project

iOS Developer   **Summer 2012 - Spring 2015**

- Helped develop ETRC's iPad application "nClouded4Life" from the ground up using funds provided by the Sid Richardson Foundation.
- Currently supporting the project by further development and upgrades.
- Working alongside a small team including two designers and a trainee programmer.

- Aided in maintaining and renovating the official site for the Pan American newspaper as well as archiving the data from past years (http://www.panamericanonline.com).

Notable Projects

Objective-C
- ✧ "nClouded4Life" - an iPad application designed to help the users understand how kids with certain disabilities see tasks that are normally considered simple. One example is reading a short story within a few minutes through the eyes of someone with dyslexia. Not only are the words hard to read but they are also hard to understand. Also the story stops flowing smoothly and instead turns into a struggle to figure out what the next word could be. This disruption stops any kind of immersion that the story is trying to provide and greatly impacts their memory of the events that took place.

C++
- ✧ "Dungeon game" - a text based dungeon crawler that allowed the player to navigate through a preconstructed world using an adjacency matrix. It incorporated a simple battle system containing several classes of enemies, status ailments, different sets of equipments, as well as a basic level up system.

Java
- ✧ "21" - a simple table card game used to emulate the blackjack card game. Coded in java, it features a basic AI opponent that can battle the player to test their luck and skill.

- ✧ "Tank Skirmish" - a top down 2D tank game in which two-players battle each other inside a randomly generated maze filled with hidden items and power-ups. Later this project was expanded into an online two player mode that used a host/client structure. The networking aspect to the game was implemented with a small group of classmates while the local two-player game was coded by myself.

Python (pygame)
- ✧ "Emmett the Explorer" - as part of my Game Development course we created a 2D platform game (platformer) that provided randomly generated terrain for the player to traverse all while avoiding dangerous obstacles and rushing to the finish line. The game was created by four people (three programmers and one graphic artist). My main part involved collision detection and reaction between the player, enemies, projectiles, platforms and the obstacles in the platforms.

Unity
- ✧ "Parasite" - a 3D action/platformer in which the player controls a parasite-like creature that has the ability to attach itself onto other creatures. Once attached the player feeds of the host and temporarily gains control of the victim. In order to escape the lab you must use different host abilities and reach the end before your life drains. Also made by four people: three programmers and one graphic artist. On this one I created four levels, three of which served as a tutorial for the game and presented the player with puzzles that require the use of the ability available on that scene. The other level had platforms with huge gaps that can be filled in by letting the player create one platform in front of them and building a path one by one til they reach the top.

- ✧ "Unit Commander" - for my senior design project we created a 2d grid-based strategy role-playing game (SRPG) in which the player can command a group of "units" and traverse the map to battle and defeat the enemy units. The main purpose of the project rests on the enemy units and the AI that allows them to fight back and interact with the player in various ways. The actions of the enemy are determined by switching through different finite-states at appropriate moments, these states include attacking the player units, defending themselves by regrouping or retreating, and a tactical state that favor hit-and-run tactics for luring the player in.