# Miguel Casillas

miguel@miguelcasillas.com

#### **EDUCATION**

**Full Sail University** 

**Bachelor of Science Game Development** 

GPA: 3.79 (Valedictorian), Attendance: 100%

Winter Park, Florida 2008 – 2010

#### **JOB EXPERIENCE**

**Gameplay Programmer** 

Popreach Inc. (Halifax, Canada)

March 2018 - Present

- Programmed everything gameplay related for Zombie Beach Party. Done in C# with Unity. This includes gameplay mechanics, Artificial Intelligence, skills, etc.
- Created scriptable objects and custom editors for designers to tune and balance the game.

# Full-stack Programmer Hothead Games (Halifax, Canada) August 2016 - February 2018

- Full-stack programmer, with focus on backend, for the Mighty Battles game. Done in C++, Python, and Torquescript with an in-house engine. In charge of implementing various client/server systems, live operations, and bug fixing.

# Lead Programmer 2DNutz (Mexico) July 2014 - July 2016

- Sole programmer for the Viva Sancho Villa game. Done in C# with Unity. Programmed everything, from gameplay mechanics, to physics, to Artificial Intelligence, to User Interface and more.
- Leader of a team of programmers in new projects.

#### **Professor**

# University of Advanced Technologies (UNIAT) September 2013 - July 2016

- Teacher of Programming I Object Oriented Programming in C++
- Teacher of Programming IV Data Structures in C++
- Teacher of Discrete Mathematics
- Teacher of Assembly Programming

## Programmer

Larva Studios (Mexico)

December 2012 - April 2014

- Worked in the Night Vigilante game

### **HONORS**

Member of Mensa International, the High IQ Society.

Member of the International High IQ Society.

Full Sail Valedictorian Award (highest GPA in the class)

Full Sail Perfect Attendance Award

Full Sail Course Director Award for Programming I

Full Sail Course Director Award for Windows Programming II

#### Skills

C/C++ C#/XNA Python Java DirectX OpenGL X86 Assembly ARM7 LUA Linear Algebra **Physics** Calculus **3D Collisions** Native level Spanish and English speaker Intermediate level Romanian and Russian speaker Basic level French, and

#### Software

**German** speaker

Visual Studio
Pycharm
Unity
XCode
Perforce
Tortoise SVN
Github
MS Office
QT

Hobbies

Making Music, visiting museums, learning languages

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- Worked in the Last Day On Earth game done in UDK with C++

# Tools and Engine Programmer Alawar Stargaze (Barnaul, Russia) January 2012 – July 2012

-Worked in two separate PC game projects done in C++ with an in-house engine. Programmed 6 mini-games for the first one and scripted 4 scenes for the second one. Worked with artists, designers and testers.

-Worked in different parts of the HOPA engine, a powerful C++ based engine for making puzzle and adventure games.

## **Mobile and Computer Game Programmer**

Beast Studios SRL (Timisoara, Romania)

#### November 2010 – November 2011

- Worked in a variety of languages, including C++, Objective C and LUA.
- Effective in adapting to a team of Romanians, being the only foreigner in the company.
- Worked in different platforms, including iPad, iPhone, PC and Xbox 360.

#### **GAME PROJECTS**

### **Zombie Beach Party (iOS/Android)**

- Gameplay programmer. Done in Unity.
- In charge of everything gameplay related such as controls, movement, AI, items, etc.
- Made custom editors and tools so designers could tune, balance, and customize the game.

# Mighty Battles (iOS/Android)

- Full-stack programmer for the game. Done in C++ and Python with an in-house engine.
- Programmed different systems for both client and server sides and worked alongside a team of programmers, artists and designers.

# Viva Sancho Villa (iOS/Android)

- Sole programmer for the game. Done in C# using Unity, programmed everything from gameplay mechanics to physics and Artificial Intelligence
- Leader of the development team which included artists and programmers. Brought the game from zero to finished and got featured as one of the top games on both the App Store and Google Play

## Night Vigilante (iOS/Android)

- -Worked in programming multiple game mechanics and bug fixes
- Created automated tests for simulating the battle scenes in the game in order to help the designer balance the different items

## Twisted Lands: Origin (PC)

- -Second game project in Alawar Stargaze, third project for the Game Industry.
- -Scripted 4 game scenes, using the Stargaze Quest Editor and other internal tools.
- -Scripted all the actions in those scenes and their respective mini-scenes by working closely with designers and other programmers and scripters.

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# **Snark Busters: High Society (PC)**

- -Hidden Object Puzzle Adventure Game for Alawar Entertainment and Big Fish Games.
- -Programmed 6 mini-games in C++, using the Stargaze Framework.
- -Worked closely with designers, artists and internal testers.

### Princess Isabella – A witch's curse (iPad)

- -Hidden Object Puzzle Adventure Game for Gogii Games and Big Fish Games.
- -Worked on gameplay programming, bug fixing, and adding different types of features. Some of these included gameplay features or features for outside the game, like creating a separate version of the game (freemium) with an in-game store for upgrading the app, implementing the libraries for Big Fish Games, etc.
- -Made in Objective C using an in-house engine from Beast Studios.

#### **Cosmic Mischief – Third Person Shooter**

- -Third person shooter game made by 8 programmers and 3 artists in 3 and 1/2 months.
- -Physics programmer: implemented 3D collisions using moving spheres and rays against a collision mesh, partitioned this mesh with a spherical BVH, and implemented the rest of the game physics and spherical geometry functions using Vectors, Matrices and Quaternions. Also created many gameplay mechanics based on the Game Design Document.
- -Made in C++ using DirectX and Wwise sound API.

#### 3D Pac-man

- -Solo Project done as an AI research. Emulated the pac-man AI and added an A\* path finding algorithm for the ghosts.
- -Multi-threaded project made in C++ using the OpenGL Utility Toolkit (GLUT).

# Nothing Is Sacred – 2D platformer

- -2D platformer done by 3 programmers in one month and a half.
- -Performed the roles of Lead Programmer and Gameplay programmer by creating the game engine and implementing gameplay and physics. Made in C++ using DirectX.

To learn more about these and other projects, visit: <a href="http://www.miguelcasillas.com/portfolio.html">http://www.miguelcasillas.com/portfolio.html</a>