Gabriel Ortega

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OBJECTIVE: Seeking a full time software engineer internship.

SKILLS:

Programming Languages: C++, C, Objective-C, Swift, C#
Graphics API: OpenGL, DirectX
Engines: Unity, Unreal Engine

PROJECTS:

X-Spark	**Tools:** *Unreal 4.5*	**Team:** *5*	**Duration:** *6 weeks*

Gameplay Programmer
- Cooperative shooter, supporting 2-4 players.
- I implemented shooting mechanics, by converting the analog controller input into direction vectors for projectiles. Also implemented behavior for applying player / enemy damage upon collision detection.

Smashcii	**Tools:** *Visual Studio 2013, C++*	**Team:** *3*	**Duration:** *48 hours*

Lead Programmer
- Fast paced rogue like top down shooter developed as part of RIT ImagineCup hackathon.
- I built a game engine for a console application. The update loop uses the character buffer of the console window to draw the game scene. I also implemented A* path finding algorithm for enemy AI.

Colors	**Tools:** *Xcode, Objective-C*	**Team:** *4*	**Duration:** *2 weeks*

Gameplay Programmer
- Casual puzzle game based on color blending.
- I implemented a color blending mechanic using spherical linear interpolation of the HSB color model. I also built custom animations for color tiles using arbitrary axis rotation.

Collision Simulation	**Tools:** *Visual Studio 2013, C++, OpenGL*	**Team:** *1*	**Duration:** *1 week*

- 3D simulation that uses linear and angular momentum to calculate the collision response between spheres and cubes.
- I implemented a rendering / physics engine that simulates movement and collision using Euler integration and Newtonian mechanics.

Binnk	**Tools:** *Xcode, Objective-C, OpenGL*	**Team:** *4*	**Duration:** *30 hours*

Lead Programmer
- 2D platformer in which the player controls the platforms inside of the platformer.
- I implemented a launching mechanic that measures the magnitude of a swipe gesture and applies that value as an impulse to the ball object. I also built a rotation mechanic that uses the orientation of the device to apply rotation to the platforms.

EDUCATION:

Rochester Institute of Technology, *School of Interactive Games and Media*	Rochester, NY	May 2017
Master in Science		

Hofstra University, *School of Liberal Arts and Sciences*	Hempstead, NY	May 2005
Bachelor of Arts		

RECENT WORK EXPERIENCE:

FieldLens	New York, NY	November 2012 - Present

Lead iOS Engineer
- I built the network, database, and visual layers of this application.

EXTRA-CURRICULAR ACTIVITIES:

- Train Jam 2015
- RIT iOS App Challenge 2015
- Global Game Jam 2015
- ImagineCup RIT 2014
- AEC Hackathon 2014