Maria Alejandra Montenegro

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Purpose

Full Time Position in the field of Interactive and Creative Technology as a Developer.

Education

Carnegie Mellon University, Entertainment Technology Center (ETC), Pittsburgh, PA Master of Entertainment Technology

GPA: 3.74/4.0

Rensselaer Polytechnic Institute, Troy, NY

Dual Degree: B.S. Computer Science and B.S. Electronic Media, Art & Communication

GPA: 3.5/4.0

Skills

Frameworks: OpenFrameworks, Unity3D

Programming Languages: C++, C#, C, Python, JavaScript, HTML5, CSS, SQL, OpenGL, .Net, PHP

Hardware Inputs: Arduino, Microsoft Kinect (v1, v2), Oculus Rift, Leap Motion, PS Move

Design Programs: Autodesk, Dreamweaver, Photoshop, Illustrator, InDesign, Flash, After Effects

Relevant Experience Magic Leap Inc. Interactive Engineer - Full time

Interactive Experiences and gaming.

Present

May 2015

Dec. 2012

Yahoo Software Engineer - Full time

Video team / android mobile development.

Kinesis Studio - Lead Engineer Internship

Summer 2014

Unity 3D developer of interactive floors with IR cameras (OpenCV) and Kinect 2.

- Developed blob detection and ID tracking algorithm, including when blobs merge together.
- Present in whole development cycle (beginning to end).
- End product were 2 installations in Las Vegas for client.

Interactive Developer (Freelance) - www.Fusion-Sky.com

May. 2012 - Present

With the use of OpenFrameworks, OpenGL, OpenCV and unique platforms like:

- Microsoft Kinect, Motion Capture, Oculus Rift, Leap Motion Arduino, Touch Screens, Lighting
 - Projection Mapping, Pepper's Ghost

Projects

MoleCap - Motion Capture & VR experience - Designer / Programmer

Spring 2015

Main Purpose: Push the limits of VR and Motion Capture technology.

Focused on researching new ways to combine technology with rapid prototyping and innovating design.

Palmistry Ball - Projection Mapping / Leap Motion

Spring 2015

An interactive game that lives in your hand. Uses Leap Motion to track the hand and 3D projection mapping to make the users had the canvas.

Marioneta - Kinect 2 experience - Lead Developer

Fall 2014

An interactive puppet gesture recognition exhibit for the Children Museum of Pittsburgh.

Research paper published by IEEE VR15.

Spring 2014

Questyinz - Backend Programmer / Co-producer An educational game to promote reading for Allegheny County Library Association.

- Real time multiplayer game focused on social interactions to promote reading in children K-5.
 - Live since June 2014.

Building Virtual Worlds - Programmer

Fall 2013

Total of five two-week fast game prototypes.

- Maze of Hearts: Kinect game take pieces of heart back to robot's heart human shadow.
- Muzilla: Leap Motion DJ environment reacts to music FFT analyzer.
- The Last Egg: A six PS Move multiplayer team game IndieCade Finalist 2014.

Related Courses **Applied Machine Learning**

Emphasized an understanding of machine learning algorithms and how to apply them in real world problems to learn and prove hypotheses.

Advanced Computer Graphics

OpenGL simulations in topics like cloth, fluids, and rendering techniques like raytracing, radiosity, and photon mapping.

Art & Code & Interactivity

Create interactive experiences and artwork with OpenFrameworks and various hardware inputs.

Activities Publications Published Paper: Marioneta Virtual Puppeteer Experience, Virtual Reality (VR), 2015 IEEE.

Mastering Leap Motion Reviewer - Packtpub.

SIGGRAPH 2012 Student Volunteer.

World Traveler and Cultural Explorer.