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:

GPA: 3.74/4.0

GPA: 3.5/4.0

Rensselaer Polytechnic Institute, Troy, NY

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

Dec. 2012

May 2015

Skills

Frameworks: OpenFrameworks, Unity3D, TensorFlow

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

PHP

Hardware Inputs: Arduino, Microsoft Kinect (v1, v2), Oculus Rift, HTC Vive, 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 with the use of computer vision in mix reality.

Present

Yahoo! - Software Engineer (Full time)

Video team / android mobile development. focused on live streaming algorithms.

2015-2016

Summer 2014

Kinesis Studio - Lead Engineer (Internship)

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

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- 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)

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

May. 2012 - Present

- 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.

Questyinz - Backend Programmer / Co-producer

An educational game to promote reading for Allegheny County Library Association.

Spring 2014

- 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.

ublications Mastering Leap Motion Reviewer - Packtpub.

World Traveler and Cultural Explorer.