Xianling Zhang

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PERSONAL STATEMENT

I am looking for an intern or co-op position of software development in the field of Virtual Reality and Argumented Reality.

SKILLS

01 Good at	*02 Familar with*	*03 Knowledge*
C/C++	OpenCV	Computer Vision
C#	OpenGL	Image Processing
Java	DirectX	Speech Recognition
R	Git	Data Mining
Python	AWS	Embedded Systems
JavaScript	Solidworks	Camera Calibration
CSS	Cocos-2dx	3D Printing
HTML	Unity	Digital Fabrication
Matlab	Maya	Project Mapping
Linux(*nix)	AutoCAD	Unity 3D Game Dev
Bash	Processing	Virtural Reality Dev
SQL	Zbrush	FPGA

EDUCATION

2013 - Present
Statistics-Computing
Penn State University
Expected Graduation Date: May 2017

2014 - Present
Computer Science(minor)
Penn State University

WORK EXPERIENCE

2

May. 2016 - Aug.2016
Software Engineer - Journey Tech.Co
-Collaborations with the optics team to continuously test out the better optical solutions in the software way.
-Make the most of the hardware tools including 9 axis sensor, 3D printed glasses, RGB cameras, depth sensors, and other development boards which are all produced by the hardware team.
-Work as a cross functional Unity developers to come up with the natural and effective principles for human and computer interactions.
-Develop and provide support with product demos and game applications
-Use new SDK, APIs, and other open sources for clear production code.

1

Jan. 2016-May. 2016
Research Assistant -Translational Neuroimaging and Systems Lab
- Designing and printing 3D Models for Mice's Brain Structure.
- Researching the Changes of Brain Structure from Small to Adult Mice.
- Image Processing for the Magnetic Resonance Imaging-Brain.

LEADERSHIP EXPERIENCE

May. 2016 to Present
President, Team Captain- Immersive Media Lab of Penn State University.

Aug. 2013 to 2014 Aug
Web Team Coordinator - Chinese Association of Student And Scholarship of Penn State(PSU-CSSA)

LANGUAGE

CHINESE
Native language

ENGLISH
Advanced level

GERMAN
Basic level

RELEVANT PROJECTS

1

Aug. 2015 - May.2016
Penn State Unmanned Systems
This is a penn state student organization lab project.
My responsibilities in the team:
- Collaborated with over 30 group members working for the International Robtics Competitions(IARC 2016).
- Lead Embedded Systems team for testing the high-level single-board processor, including the Odroid XU4 and Xilinx FPGA board.
- Designed the overall System Structure for the Unmanned Vehicles with sensors and lens, and mount them all to the single board computer.
- Calibrated the camera lens' angle of view(AOV), and calculated the maximum field of view form some extrem cases.
- Developed and tested the computer vision algorithms for vehicle tasks

2

Dec. 2015 - May.2016
Speech Recognition Installation with Oculus Rift
This is a individual project with 10 group members.
My responsibilities in the team:
- Lead the interdisciplinary team of students with different backgrounds for a voice command driven VR game.
- Designed the Networked Multiplayer Game mode, which enables multiplayers interact with each other in the game.
- Trained for using the open-source Speech Recognition package, which is the CMU Sphinx4, for building up the client sever recognition system.
- Worked on a cross-platform programming for Java and C#
- Planed to embedded Single-board processor with the Oculus Rift.

3

Dec. 2015 - May.2016
Data Mining Project
This is a group project for data mining graduate level class**.**
My responsibilities in the team:
- Worked with two other phD students, applied the method including the k-means and k-nearest neighbor algorithm to train and test the datasets
- Implemented the trea structured classifer using the splitting method method of CART and choosing the split stopping criterion
- Used the EM algorithm for estimating mixture models and its application in classfication.
- Programmed with Matlab to analyzing the dataset of industrial engineering system, and reported with presentation.

4

Oct. 2015- Jan. 2016
Unity 3D Game Design with Eye-Tracker
This is a research group game project with 3 programmers.
My responsibilities in the team:
- Set up the storyline for the educational game, which is used for powering up the social skills of children with autism
- Designed the assets for the 3D environment, including some public places like train station and cafe.
- Embedded the game control with Eye-tracker. The eye movements of the kids will be obatined when playingthe game.

5

Oct. 2015- Dec. 2015
Projection Mapping Project with Kinect
This is an interactive design with 2 group members.
My responsibilities in the team:
- Programmed in Java with Kinect to detect the human gestures and movements. The Kinect always needs to be calibrated, so people inside certain range can be detected.
- Designing the 3D objects with software including Maya and Zbrush. The 3D models included three buttons representing the concept of transform, scale, and rotate.
- Utilizing the digital fabrication tools like the CNC machine and Laser Cutter to generate the models.
- Coding in Java with Processing, which is a electronic sketchbooks, to produce all other 2D visuals.