

Guanqiao(Joe) WANG

Tel: 1412-503-3817 E-mail: duduyi2015@gmail.com

OBJECTIVE

Looking for back-end game programmer internship for summer 2017

EDUCATION

Carnegie Mellon University, Entertainment Technology Center	09/2016 - 05/2018
Master of Entertainment Technology	
Beihang University, Computer Science Department	09/2011 - 07/2015
Bachelor of Engineering	

SKILLS

Computer Languages: C, C++, C#, Html/CSS, JavaScript, Octave

Spoken Languages: Chinese (mandarin), English

Software: Unity

Relevant Courses

Computer Game Programming, Algorithm, Database, Data Structure

EXPERIENCE

Computer Science Department, Carnegie Mellon University, Pittsburgh, PA

Visiting Scholar (03/2015-01/2016)

- Created an interactive real-time tempo-changing audio player in C++ to play tempo changeable music locally or under control of "conductor".
- Real-time block processing with multithread in reading data, PV processing data and playing data. Implemented two layers of beat mapping, which can transfer live beat into reference beat (uniform beat for different players), and from reference beat to media beat (actual beat in music file)
- Learned audio source libraries, such as Portaudio, Libsndfile, wxWidgets, ZeroMQ and mechanism in Phase Vocoder.

ACADEMIC PROJECTS

Building Virtual Worlds (Programmer) (Fall 2016)	-Entertainment Technology Center
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- Developed communication, teamwork and rapid prototyping skills while working in a 5-person team on a 2-week rotation
- Learned VR game development for devices like HTC VIVE, Oculus Rift and Unity networking with VR devices.

2.5D Unity Platform GAME (09/2015 – 12/2015)	-Computer Game Programming
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- Wrote a 2.5D platform game in which character has to solve puzzles and combat with enemy.
- Implemented path finding inside Unity, combat learning strategy using N-gram and Goal-Oriented Actions Prediction, part of the game mechanics.

Website development: Shopping Website (11/2013 – 01/2014)	-Principle of Database System
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- Used HTML/CSS, JS and PHP for a basic offline shopping website.
- Designed the database, implemented back-end implementation and most of the front-end.

PERSONAL PROJECTS

KINECT GAME: Motion Sensing World CUP (01/2014 - 04/2014)	-Microsoft China
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- Developed a multiplayer soccer passing game, using Unity 3D game engine with multiple Kinect sensors.
- Analyzed the behaviors based on skeleton movement and then trigger specific effect for soccer.
- Designed the interactive rules and developed each game effect and multi-player modules.

Image Processing: Recognition of Handwritten Numbers (08/2013-12/2013)	-Beihang Student Lab
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- Implemented a $n*n$ grids to roughly detect the shape of each scanned handwritten digits and identified them.
- Preprocessed image to improve the accuracy for harsh environments like different lighting, different orientations and positions of each paper.