Wuyue LU

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EDUCATION & PROFESSIONAL BACKGROUND

School of Computer Science and Technology, University of Science and Technology of China
GPA(Overall): **3.94/4.30** (**Top 2%** in the department)
Related courses: Programming I (99/100), Programming II (100/100), Calculus I (95/100), Calculus II (92/100), Linear Algebra (95/100), Probability & Statistics (98/100), Optics & Atomic Physics (100/100)

RESEARCH EXPERIENCE

Computational Biomedicine Imaging & Modeling Center at Rutgers University | Summer Research Internship
*Advisor: **Mubbasir Kapadia**, Assistant Professor, Computer Science Department, Rutgers University*

➢ **Crowd Simulation and Dynamic Path-Planning based on GPU**   July 2017-Sept 2017
- Researched the field of Crowd Simulation, and delved in path-planning algorithms and GPU acceleration
- Learned CUDA technique, and combined GPU computation with open-source C++ library *SteerSuite*

Graphics & Geometric Computing Laboratory (GCL) at USTC | Research Leader
*Advisor: **Ligang Liu**, Professor, School of Mathematical Sciences, USTC*

➢ **Surface Reconstruction from Point-Cloud Data without Normal**   Nov 2017-Now
- Implemented reconstruction method from point clouds data without normal information

➢ **Real Time Physics-Based Animation**   Jan 2017-June 2017
- Implemented various physics-based simulation methods, including Mass Spring Systems, Finite Element Method, and designed framework to show 3D animation scenes with modern OpenGL and Qt GUI library

➢ **Apply Quaternion on Rotation-Invariant Deformation**   Nov 2016-Jan 2017
- Improve the algorithm of Linear Rotation-Invariant mesh deformation with the use of quaternion

Key Laboratory of Computing and Communication Software of Anhui Province | Research Leader
*Advisor: **Shangfei Wang**, Associate Professor, School of Computer Science and Technology, USTC*

➢ **Apply Machine Learning on TETRIS**   Dec 2015-May 2016
- Applied reinforcement learning, cross-entropy method and neuron network methods on the game Tetris
- Deployed the learning agent onto a Linux cloud server and obtained extraordinary result

AWARDS

➢ Academic First Scholarship 2016   (**Top 5%** in the department)
➢ National Scholarship 2017   (**Top 2%** in the department)

SKILL SET

Programming Skills: more than 7 years programming experience, solid expertise in C++ (>80k lines), experienced in Java, Python and OpenGL Shader Language (GLSL), adept in modern OpenGL pipeline, Qt GUI library, MATLAB and Linux
Mathematical Skills: familiar with linear algebra and computational geometry, experienced in combining theory with practice

RESEARCH INTEREST

Keen interest in technology of Computer Graphics, especially in rendering techniques and physical based simulation.