Yue Wang

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Summary

Master's student in Computer Science with thesis research in real time rendering. More than 3 years' experience in graphic programming, including rendering, physically based simulation, and 3D printing. Good communication, analytical, and problem-solving skills.

Education

Sep 2016 - Current
Master of Science, **McGill University**
Major: Computer Science • GPA: 3.82/4
Thesis Topic: Light Field Probe Placement Exploration for Global Illumination
Supervised by Prof. Derek Nowrouzezahrai and Prof. Paul Kry

Sep 2012 - June 2016
Bachelor of Science, **Shandong University**
Major: Computer Science, Elite Class • GPA: 92.51/100 • Rank: 1/33
Thesis Topic: High-dimensional Multi-variate Data Visualization

Work Experience

July 2017- Mar 2018
3D Programmer Intern at La Forge, Ubisoft Montreal
• Implemented an cutting-edge GI algorithm and fully integrated into game engine
• Tested with game scenes on PC and PS4, explored use cases and optimized parameters

Jan 2017 - Mar 2018
Teaching Assistant at McGill University, Montreal
• *Computer Graphics:* Maintained office hours providing help on course materials and graphic programming, designed and graded projects on shadow map and ray tracer
• *Computer Organization:* Tutored students on designing and programming in ARM assembly language on FPGA chips, examined student live demo biweekly

Oct 2015 - Feb 2016
Research Assistant at Shandong University, China
• Developed physically based algorithms for identifying fragile and unprintable parts of 3D tree meshes
• Implemented modules for processing and output 3D-printer-friendly tree meshes

Summer 2015
Summer Intern at RTX Lab, University of Alberta, Edmonton
• Implemented FPGA-based 2D Finite Element Method(FEM) for motor simulations
• Optimized the sparse solver for the system of linear equations of FEM

Projects

Mar. 2017 **Particle Based Fluid Simulation**
• Implemented Smoothed Particle Hydrodynamics(SPH) that simulated fluid waves at real time
• Supported user interactions and different simulation models (faucet and dam)

Sep. 2016 **Global Illumination Renderer**
• Physically based offline rendering prototype based on Smallpt
• Features: Importance sampling, motion blur, path tracing, volumetric scattering, photon mapping, equal-angular volumetric importance sampling

Feb. 2015 **StreamVis: Streaming Data Visualization System**
• Developed interactive framework for visualizing time-varying multi-variate data
• Improved algorithm for mapping high-dimensional data into 2D while preserving the correlation between variables
• Won *Honourable Mention Poster* at *IEEE Visualization Conference* 2015, Chicago

Computer Skills

Programming Languages: C++, C, GLSL, HLSL, Java, ARM assembly
Graphic Libraries: OpenGL, DirectX
Applications: Matlab, MeshLab, netfabb, Blender, Mathematica, RenderDoc, SCUI, Perforce