Zhuang Guan

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EDUCATION

University of Electronic Science and Technology of China, Chengdu, P.R.China
 2017.9 - 2018.6   School of Computer Science and Engineering (Undergraduate)
 2016.3 - 2018.6   Yingcai Honors College of UESTC (top 10% of students can apply to be a member)
 2015.9 - 2016.1   School of mechanical and Electrical Engineering
GPA: 3.96/4.0   AVG.SCORE: 91.27/100   RANKING: 2/294

PROJECTS

TinyOS | [C & x86 asm] An operating system for x86 single-core computer

- OS kernel equipped with modules of thread scheduling, process management, inter-process messaging, keyboard driver and file system
- Shell-like user interface and basic applications (cat, ls, text editor, ...)

VoxelW | [C++] A real-time voxel world renderer

- Procedural land generation based on Perlin noise and Voronoi diagram
- Global illumination model for voxel scene, supporting unlimited number of light sources and fast ambient occlusion
- Skeleton animation and a tool for combining multiple animation file into one in user-defined format

OWE | [C++] A zero-overhead shader framework for DirectX11

- Flexible rendering pipeline specified by C++ template parameters
- Shader resource management based on D3D reflection

ELM | [C] An interpreter of a staticly typed programming language

- Incremental garbage collection
- Higher-order function and closure

ACTIVITIES

2017 | National Undergraduate Training Program for Innovation and Entrepreneurship (member)

- Implemented the model generation algorithm for shadow art sculpture (Niloy J. Mitra & Mark Pauly, 2009)

HONORS AND AWARDS

2016   Outstanding Student Leader
2016   Dongguan Hi-tech Zone scholarship
2017   People Scholarship (Third-Class)
2017   The second prize in China Undergraduate Mathematical Contest in Modeling

TECHNICAL SKILLS

Advanced: C, C++
Intermediate: Python, Matlab, Java, x86 Assembly, DirectX11, OpenGL3.+
Basic: Rust, Linux, LaTeX

LANGUAGES

Mandarin: Native   English: Fluent (TOEFL: 104)