YONGFENG QIU

M.S. student @ University of Utah

PERSONAL DETAILS

Birth	February 07, 1999
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EDUCATION

M.S. Graphics & Visualization Track   `2021-NOW`
University of Utah
  Secured 3.76 GPA.

B.S. Graphics & Image processing Track   `2017-2021`
Harbin University of Science and Technology
  Secured 85.5 percentage.

SKILLS

Languages	Mandarin(mother tongue), Cantonese, English
Programming Languages	C/C++, PYTHON, MATLAB, MYSQL, LUA

- **Master the basic operation of OpenGL, be able to use OpenGL for Raster rendering and ray tracing, and master the combination of OpenGL, MFC and OpenCV to make interface programs.**

- **Master the synchronization and communication between threads / processes, and master the mechanism of thread pool, dynamic library, static library and lock.**

- **Master one-to-one data structures , one to many data structures, many to many data structures and basic sorting algorithms and basic search algorithms.**

- **Master the basic operating commands of Linux operating system, be familiar with a variety of server models, the writing and use of Makefile and the writing of file IO.**

INTERNSHIPS

VirtAI Tech   `February - May (2021)`
Cloud rendering department, System Development Engineer
  Supervision : Under Dr. Biaobiao Shen, Mao Zou
  About : About : Rendering optimization for Linux Operating system. Convert DX11-based renderer to Vulkan-based.

PROJECTS

Graphic system based on harmony search algorithm and CNN

Function Description:

⊙ Basic 2D 3D graphics drawing operations (line, pencil line, Bezier curve, spline, rectangle, circle, ellipse, triangle, regular pentagon, regular hexagon, arbitrary polygon, cube, cylinder, cone, sphere, sky box, external model reading)

⊙ Basic graphic modification operations (image filling, linear modification, line weight modification, rubber band operation, eraser operation, material addition and saving)

⊙ Basic light source modification operations (horizontal light, point light, spotlight)

⊙ Basic graphic position operation (parallel, inscribe, circumscribe, line circle tangent)

⊙ Basic graphics retrieval (primary rough retrieval, secondary accurate retrieval)

Using technologies: MFC, OpenGL, OpenCV, C + +, design pattern, STL, harmony search algorithm, CNN, Bresenham algorithm, Phong lighting, thread pool, producer consumer mode

Cloud system based on TCP / IP protocol

Function Description:

⊙ Registration, login, friends list, friends status, add and delete friends, user profile change, single chat, file upload to nailing disk, file second transmission, file breakpoint continuation, file download, file sharing, file extraction, file deletion, log.

Using technologies: windows, CS architecture, TCP, design mode, STL, thread pool, producer consumer, mysql, server, client: