james kao

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experience

Shapes
fall 2015 - opengl, c++

Implemented a c++ solution to tessellate objects such as the sphere, cone, cylinder, and cube.

Snowcast
fall 2015 - c language

Created a multithreaded server and client which uses a simple protocol on top of TCP/IP to send/receive commands and stream music at a consistent bitrate.

Game Engine | github · game
fall 2015 - java swing

Building a 2d game engine from scratch. Currently includes a built-in MVVM framework, A* pathfinding for units, viewports, and behavioral trees. The game engine models heavily after WPF, utilizing a single layoutroot in organizing UIElement nodes into a xaml like hierarchy.

WhatsApp | SDE intern
summer 2015 - windows phone

Worked on rendering iOS 8.3 emoji sequences onto WhatsApp's windows phone client. Implemented a custom in-app camera which allows for easy captioning of taken pictures.

Weenix
spring 2015 - c language

Built an operating system based off of early versions of Unix. Weenix runs on a single processor and uses the System V filesystem beneath a virtual filesystem. Completed implementation also uses virtual memory and supports running user land binaries.

Pi-xel | http://pi-xel.heroku.com/
winter 2015 - web

Developed a platformer game using html canvas where players draw their character's sprites and animations. Creations are then saved and queried using Node.js and mongodb.

relevant coursework

Math + Algorithms | Structure and Interpretation of Computer Programs (61a), Algorithms and Data Structures (16), Discrete Mathematics and Probability Theory (70), Design and Analysis of Algorithms (157), Linear Algebra and Differential Equations (54)

Systems | Introduction to Computer Systems (033), Operating Systems and Lab (167 + 169), +Computer Networks (168)

Other | +Introduction to Computer Graphics (123), +Topics in 2D Game Engines (1971)

skills

General · python, c#, c, java, c++, matlab, sql, powershell ise
Adobe · photoshop, indesign, illustrator, fireworks
Web · html, css, javascript, jquery, node.js, mongodb
Windows Phone · xaml, silverlight

education

Rhode Island School of Design
Computer Science courses from Brown University and UC Berkeley