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Objective Seeking a Full-Time Software Development Position or Internship

Education

University of California, Riverside

Sept 2008 - Dec 2013

Bachelor of Science, Mechanical Engineering

GPA 3.14

Minor, Computer Science

GPA 3.63

Experience

Web Development (JavaScript, CSS, HTML)

Nov 2013-Present

Currently working on website for Research Company

Built personal portfolio from scratch with custom JavaScript games

Super Mario Brothers clone in (c/c++ and SDL)

May 2013-Jan 2014

Capable of loading, saving, running 60 FPS, changing audio effects

Uses OO programming, containers, memory management, and Threading

Desktop Music Player (Java and JavaZoom)

Sept 2013-Jan 2014

Designed like iTunes but optimized for playlist management

Uses multithread synchronization, object serialization, regex filters, swing components

Phong Illumination Model with Smooth Shading (c/c++ and OpenGL)

Takes 3D triangular mesh then applies loop subdivision to create finer mesh

Can manipulate mesh by translating, rotating, adding smooth Phong shading and shadows

Letter Recognition Software (Matlab)

Self-guided project not influenced by any other algorithm

Capable of identifying the letters written in a picture regardless of the font size

Pacman and Minesweeper Clones (JavaScript)

Both games use fast algorithms and appropriate data structures for constant lookup time

Pacman runs 30 FPS smoothly and only renders changes while playing

Ghost in Pacman use Dijkstra's algorithm to find shortest path to Pacman

3D models and simulations (Matlab)

Awarded top in class for creating a racecar simulation in Matlab

Developed other models to simulate wind, gravity, jet propulsion, N-body experiments

iOS Phone Development (Objective-C and Lua)

Built multi-directional shooter using the Corona SDK

Created a tower defense replica using Objective-C

Sound Programming and Composing

Composing music using FL Studio for games and for personal pleasure

Experience with JLayer, Java audio, SDL audio, Matlab audio, JavaScript audio

Undergraduate Research on Geothermal Reservoir Modeling

Wrote a 36 page paper discussing geothermal energy as a viable energy source

Skills

Languages (in order of experience)

c/c++, Java, Matlab, JavaScript, HTML, CSS, Bash Scripting, Lua, Python, Objective C

Programs

SolidWorks, Eclipse, Xcode, Photoshop, Gimp, FL Studio, Unity and Blender (Beginner)

Sciences

Computer Vision, Machine Learning, Graphics, Mechatronics, Finite Element Methods, Statics, Dynamics, Thermodynamics, Fluid Mechanics, Mass and Heat Transfer