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Education

University of California, Riverside   *Sept 2008 - Dec 2013*
Bachelor of Science, Mechanical Engineering   *GPA 3.14*
Minor, Computer Science   *GPA 3.63*

Professional Experience

Geospatial Game Development, Applied Invention   *June 2014-Present*
c++ engine runs on top of Panda3D and uses a Redhat Mapserver for high-res terrain imagery
Maintaining and assembling Redhat Mapservers, creating customized Redhat isos
Developed a file system diagnostics website for Redhat Mapserver
Modified terrain system and UI to allow users to switch terrain layers dynamically
Rewrote water shader to fix z-fighting and to incorporate bathymethry data
Built a hotkey menu system that allows users to customize and define new hotkeys
Rapid gui development using HTML, CSS, jQuery, Sass and Grunt for JS task running
Other things such as: creating camera classes, diagnostic tools, AutoHotKey scripts, demos

Part-time Full Stack Developer, FrackOptima   *May 2016-Present*
Participated in the development of FrackOptima's website
Website built on Flask microframework and uses CSS, jQuery, Jinja2, AWS

Personal Projects

Web Development (JavaScript, CSS, HTML, PHP)   *Nov 2013-Present*
Developing static website to showcase French Bulldogs
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
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

Skills

Languages (in order of experience)
c/c++, JavaScript, Bash, Java, Python, PHP, Matlab, Objective C, Lua

Sciences (in order of experience)
Algorithms, Statics, Dynamics, Graphics, Mechatronics, Thermodynamics, Fluid Mechanics,
Computer Vision, Machine Learning