Mitchell Hansen

Education

2012–2017 **B.S. in Computer Science**, *Central Washington University*, Ellensburg, WA.

Experience

Vocational

June 2016 – Sept. 2016 **Full Stack Web Developer, Intern**, *Donuts Inc.*, Bellevue.
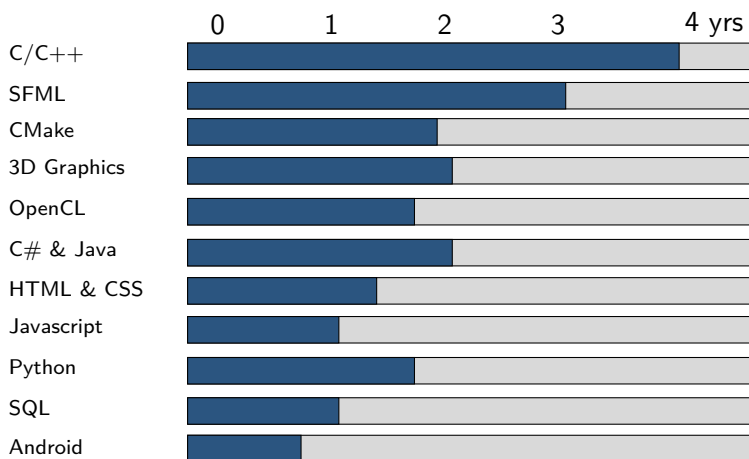At Donuts I created multiple sites utilizing the full web stack. From Javascript, HTML, and CSS, to Python, Flask, and AppEngine, I learned it all. Projects include a prototype link shortener, internal web page, a domain lookup landing page, and a realtime online game.

Miscellaneous

2009–2016 **Waiter**, *The Palace Cafe*, Ellensburg, WA.
At the Palace I learned about teamwork, commitment, and responsibility.

Skills & Languages

Skill	Years (0–4)
C/C++	~3.5
SFML	~3
CMake	~2
3D Graphics	~2
OpenCL	~1.5
C# & Java	~2
HTML & CSS	~1.5
Javascript	~1
Python	~2
SQL	~1
Android	~0.75

Other Skills, *Nix, AWS, Alexa, Algorithms, AppEngine, Bash, Clang, Flask, GCC, GDB, GPGPU, Git, LaTeX, OpenGL, Unity3D, Vim, Windows, Windows Phone, Zune

Portfolio

Volumetric Rendering Engine, *OpenCL, C++, SFML, RayCasting, 3D Math*.
An experimental "From Scratch" volumetric rendering engine utilizing a voxel dataset organized in a sparse voxel octree, Blinn-Phong lighting, dynamic shadowing, texturing, and reflections, along with a TCP streaming Android controller. Presented at the CWU College Of The Sciences fair.

Conways Game of Life, *OpenCL, C++, SFML*.
Completely in-core GPU Conways Game of Life simulator and accompanying RLE decoder.

Mandelbrot Renderer, *OpenCL, C++, SFML*.
Completely in-core GPU Mandelbrot renderer and explorer based on Wikipedia's Mandelbrot rendering algorithm.

Optimization Algorithms, *C++, Computer Science Mathematics*.
Implementation of 15 optimization test suite functions, and 9 popular mathematical optimization algorithms.

Project Euler, *Python, Computer Science Mathematics*.
Combinatorics, discrete math, and other logic problems solved using Python.

A* Pathfinding Implementation, *C++, SFML*.

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