Corbin Gruber

Contact Information

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Website/Portfolio

corbingrbr.github.io

Education

California Polytechnic State University, San Luis Obispo, CA *Anticipated* December 2016
Bachelor of Science in **Computer Science**

Qualifications

- **Fluent:** C++, Java, JavaScript(jQuery, React), HTML, CSS, Python, C, Assembly, SQL
- **Tools:** Git, make, cmake, LaTeX
- **Graphics:** OpenGL, WebGL, Adobe Photoshop
- **Platforms:** Linux(Ubuntu), Mac OS X

Relevant Coursework

Advanced Rendering Techniques
Design and Analysis of Algorithms
Programming Languages
Cryptology
Database Systems
Real-Time 3D Computer Graphics Software
Computer Architecture
Theory of Computation
Program Logic/Microprocessor Based System Design
Operating Systems

Experience

Cal Poly Chemistry Department, San Luis Obispo, CA
Software Engineer Summer 2016

- Worked closely with a professor to materialize their vision of a tool for education.
- Produced interactive software for viewing cubic Bravais lattices to assist students in their spatial comprehension of the topic.

Software Engineer Summer 2015

- Developed an interactive educational environment for introductory chemistry concepts.
- Created visualizations for ionic bonding, the Bohr electron model, and parts of the periodic table.

Cal Poly Corporation, San Luis Obispo, CA
Software Engineer Summer 2015

- Integrated a REST database storing geographical content with CesiumJS for data visualization with respect to Earth.

Projects

Flood Fill

- Developed a voxel-world puzzle game with three teammates in C++ using OpenGL.
- Responsible for collision detection, user interface, and level design.

Ray Tracer

- Designed an image rendering process for given scene descriptions.
- Lighting techniques employed include reflection, refraction, and global illumination.

Reconfigurable LED Poi

- Designed hardware incorporating Atmel 8-bit AVR, SPI Flash memory and battery charging circuitry.
- Developed website for pattern creation using jQuery.