Corbin Gruber

Contact Information

107 Mustang Dr. #203 (480) 861-5419
San Luis Obispo, CA, 93405 cgruber@calpoly.edu

Website/Portfolio

corbingrbr.github.io

Education

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

Qualifications

- **Fluent:** C, C++, Java, Assembly, HTML/CSS, MySQL, Python, JavaScript(jQuery)
- **Tools:** Subversion, Git, make, cmake
- **Graphics:** OpenGL, WebGL, Adobe Photoshop
- **Embedded:** Atmel AVR 8-bit MCU, Embedded Linux(ARM), TI MSP430
- **Platforms:** Linux(Ubuntu, Arch, Debian), Windows, Mac OS X

Relevant Coursework

Advanced Rendering Techniques	Theory of Computation
Real-Time 3D Computer Graphics Software	Computer Animation
Design and Analysis of Algorithms	Computer Architecture
Programming Languages	Linear Analysis
Introduction to Computer Graphics	Program Logic/Microprocessor Based System Design
Introduction to Operating Systems	Current Topics in Computer Science (Cryptology)
Introduction to Computer Organization	Discrete Structures

Experience

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

- Worked closely with a professor to materialize their vision for an educational tool.
- Produced interactive software for viewing cubic Bravais lattices.

Software Engineer Summer 2015

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

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

- Integrated a REST API with CesiumJS for data visualization.

Projects

OpenGL Game

- 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 in Javascript using JQuery.