

Corbin Gruber

CONTACT INFORMATION

107 Mustang Dr. #203
San Luis Obispo, CA, 93405

(480) 861-5419
cgruber@calpoly.edu

WEBSITE/PORTFOLIO

corbingrbr.github.io

EDUCATION

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

Anticipated December 2016

QUALIFICATIONS

- **Fluent:** C++, Java, JavaScript(jQuery), HTML/CSS, Python, C, Assembly, MySQL
- **Tools:** Git, make, cmake, LaTeX
- **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
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 data with CesiumJS for visualization of the data 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.

Microcontroller Wifi LCD Interface

- Interfaced a TI MSP430 microcontroller with an ESP8266 and a LCD to facilitate wireless communication.