

# Jasmine Dirksen

555 Ramona Dr., San Luis Obispo, CA 93405 | (310)702-0360 | jdirksen317@gmail.com

## Education:

### **California Polytechnic University San Luis Obispo**

Sept 2012 – Dec 2013, Mar 2017 - present

B.S. in Computer Engineering expected December 2019

#### Computer Science Coursework:

- Fundamentals of Computer Science
- Design & Analysis of Algorithms
- Systems Programming
- Computer Architecture
- Intro to Operating Systems
- Intro to Computer Graphics

#### Electrical Engineering Coursework:

- Digital Design
- Electric Circuit Analysis
- Continuous Time Signals & Systems
- Semiconductor Device Electronics
- Digital Electronics & Integrated Circuits

### **El Camino College**

Jan 2014 – Dec 2016

## Projects:

### **Deep Sea Maze**

Dec 2018

- Designed an underwater maze that the user navigates using a submarine.
- Incorporates rotation, textures, Blinn-Phong shading, and AABB collision detection in OpenGL.

### **RAT Assembly MCU**

Nov 2017

- Built a Harvard architecture RISC MCU in VHDL
- Generated instructions for the MCU using RAT assembly code, the results of which were displayed via an FPGA board.

### **Huffman Encoder**

May 2017

- Developed an encoder that compresses text files into binary files & vice versa.
- Builds the Huffman tree in order of ascending frequencies, using ASCII values to break ties.

### **Simple Calculator**

May 2017

- Designed a calculator in VHDL using standard modules.
- Reads in two binary numbers from an FPGA board and performs simple operations (add, subtract, multiply, divide).

### **Web Development**

Jan 2019

[www.ashleydirksen.com](http://www.ashleydirksen.com)

- Consulted with client to create personal professional website
- Wrote "About" page & structured website in a user-friendly manner

### **Mastermind Game**

Dec 2015

- Recreated the game "Mastermind" using Java's GUI
- Implemented Java's listener classes to account for user input

## Skills:

*Proficient* in Java, C, C++, Python, VHDL, RAT Assembly, HTML, CSS

*Familiar* with OpenGL, Processing, Auto-CAD, MIPS, Houdini FX, Adobe CS

Fluent in Spanish

## Activities:

Multicultural Engineering Program

2012-2013

Institute of Electronics & Electrical Engineers Student Branch

2017-present

Women in Software & Hardware

2017-present