# **Brandon Eng**

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## Education

California Polytechnic State University, San Luis Obispo

BS: Computer Engineering

September 2012 – December 2016

#### Skills

- Programming Languages Java, C, C#, C++
- > Tools Eclipse, Unity, Greenfoot, Inform7, OpenGL

#### **Related Coursework**

Systems Programming
Introduction to Computer Security
Computer Architecture
Introduction to Operating Systems

Electric Circuit Analysis I, II Introduction to Computer Graphics Design and Analysis of Algorithms Interactive Entertainment Engineering

# **Projects**

RGB Painting Simulation – C#, Unity

December 2016

- Used RGB color system to create a painting simulation
- Implemented RenderTexture and Texture2D to create the painting

Bottle Brigade – Mechanical Design Lead – AutoCAD

March 2016

- Created a baby bottle sleeve to track the usage of the bottle
- Designed the encapsulation that houses the hardware

Writer's Block - Java, Greenfoot - Global Game Jam

January 2016

- ➤ Built over 48-hour hackathon with a 3-person team
- Strategize against an opponent using various Shakespeare characters
- Used procedural generation to develop the board

Gravitatis Cecidisse – Inform 7

January 2016

- Escape the various rooms by decoding the various ciphers in this text adventure
- Locks are encoded using Caesar, Atbash, A1Z26, and Vigenere Cipher

Linear Sim – C March 2015

- Simulates heat transmission and spread from one or two sources over a set number of cells
- Used piping and forks to distribute and retrieve data

LZW Decompression – C

February 2015

- Decompresses LZW compressed files and presents output
- Used bit manipulation to convert compressed data into ASCII

Carrot Hunter – Java, Processing

May 2013

- Traverse a hedge maze to collect carrots, while avoiding rabbits along the way
- Used OpenGL to create the player, rabbits, and treasures

### Experience

Cashier at Cathay Kitchen, San Mateo

2009 - 2015

- > Took on other roles in the restaurant such as busser and waiter
- > Delivered food to neighboring establishments

# Volunteer

Friends of the San Francisco Public Library