

# Alyssa Lo

## EXPERIENCE

### Software Engineer Intern — VeriSilicon Inc., San Jose, CA

May 2020 - August 2020

- Created a software module used to simulate and test the allocation of buffers from the execution of neural networks' layers
- Built a backtracking program to find the ideal order of layer executions such that a buffering technique can be used
- Worked with engineers in a continuous development cycle to fit the program to their needs
- Technologies Used: C++, Git

### Software Engineer Intern — VeriSilicon Inc., San Jose, CA

May 2018 - August 2018

- Improved the performance of a tiling algorithm used to drive an AI Processor and decreased runtime by 10%
- Technologies Used: Python, Visual Basic, Perforce

## EDUCATION

### University of California, Berkeley — B.A. Computer Science

AUGUST 2017 - May 2021

## PROJECTS

### RayTracer

- Technologies Used: C
- Created a Ray Tracer using Ray-Object intersections and bounding volume hierarchy to find objects
- Also implemented Direct and Global Illumination.
- implemented direct illumination in 2 ways: by sampling lights and by sampling the hemisphere uniformly.
- includes Adaptive sampling to speed up rendering time

### Real-Time 2D Fluid Simulation — WebGL

- Link: <https://opyrinis.github.io/final.html>
- Technologies Used: WebGL, JavaScript
- Used only WebGL to create a real-time 2D fluid simulation

### Palette Town — 2D Platformer Puzzle Game

- Link: [tinyurl.com/palettetown](http://tinyurl.com/palettetown)
- Technologies Used: C#, Unity
- Led a group to build and publish a game that utilizes colors as environmental and player affecting powers
- Using agile software development techniques

## CONTACT

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## SKILLS

### Coding Languages:

Java, Python, C, SQL, C#, C++, Visual Basic

### Technologies:

Git, Windows, Maya, Photoshop, Illustrator, Unity, Linux, Perforce, GDB

## RELEVANT COURSES

Machine Structures

Operating Systems and System Programming

Data Structures

Introduction to Database Systems

Efficient Algorithms and Intractable Problems

Computer Graphics and Imaging

3D Modeling and Animation

Computer Security

Introduction to Artificial Intelligence

Probability for Data Science

Principles & Techniques of Data Science

## SCHOOL ACTIVITIES

Product Development at Berkeley

Robotics at Berkeley