

## OBJECTIVE

Looking for graphics software engineering intern roles working on studio tools

## EDUCATION

Stanford University  
Computer Science  
(B.S.), Graphics  
Art Practice (B.A.)  
Grad date: Jun 2020  
GPA: 3.8

## SKILLS

Programming Languages

 C++  C  
 Python  Java  
 OpenGL  Javascript

Programming Skills

 Object-oriented

 UNIX/Linux

See my work at  
[www.github.com/mjyip8](https://www.github.com/mjyip8)

Other:

 Scrum Methodology

 Maya

 Qt Creator

## INTERESTS

Computer Graphics,  
Animation, Women in STEM,  
Oil Painting, Running half  
marathons

## WORK EXPERIENCE

### Virtual Reality Software Developer

- ▶ Create and conduct virtual reality studies for the Stanford Virtual Human Interaction Lab
- ▶ Use 3D modelling and Python to simulate worlds in Vizard, 3DS Max, and Unity to collect and analyze experimental data

Sept  
2018 -  
Now

### Microsoft Explore Intern (PM/Software Dev)

- ▶ Redesigned UX and look of Microsoft's internal website which tracks worldwide transactions real-time
- ▶ Used Javascript for processing and visualizing data
- ▶ Created pop-up notifications feature with Javascript & HTML based on user customization and abnormal traffic

Jun  
- Sept  
2018

## PROJECTS

### Simulating Four Legged Animal Walking (in progress)

- ▶ Implemented Catmull-Rom splines and spring-mass system for animal body in C++ and OpenGL
- ▶ Inspired by paper Footprint-Based Motion Synthesis by Torkos (1998)

May  
2018  
-  
Now

### Shading experiments

- ▶ Implemented Phong reflectance in C++ and OpenGL
- ▶ Added environment lighting from environment map
- ▶ Added normal mapping for surfaces

May  
2018

### Mesh Editor

- ▶ Implemented Catmull Clark subdivision, linear subdivision and loop subdivision with C++

May  
2018

### Raytraced image of Terrace at Sunset

- ▶ Created depth of field effect with C++ and OpenGL
- ▶ Changed shadow rays to travel through glass

Nov  
- Dec  
2018

## ORGANIZATIONS

### Stanford Women in Computer Science

#### External Events Chair

- ▶ Coordinate educational events about interdisciplinary careers in Computer Science
- ▶ Organized and conducted speaker & attendee outreach for Spring Distinguished Speakers series, attended by over 100 undergrads

2017 -  
2019