MADELEINE YIP

Cupertino, CA www.majyip.com
mjyip@stanford.edu (408)645-9119
www.linkedin.com/in/mjyip

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

Other:

- Scrum Methodology
- Maya
- Qt Creator

INTERESTS

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

WORK EXPERIENCE

Virtual Reality Software Developer — Sept 2018 - Now
- Create 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

Microsoft Explore Intern (PM/Software Dev) — Jun – Sept 2018
- 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

PROJECTS

Simulating Four Legged Animal Walking (in progress) — May 2018 – Now
- 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)

Shading experiments — May 2018
- Implemented Phong reflectance in C++ and OpenGL
- Added environment lighting from environment map
- Added normal mapping for surfaces

Mesh Editor — May 2018
- Implemented Catmull Clark subdivision, linear subdivision and loop subdivision with C++

Raytraced image of Terrace at Sunset — Nov – Dec 2018
- Created depth of field effect with C++ and OpenGL
- Changed shadow rays to travel through glass

ORGANIZATIONS

Stanford Women in Computer Science
External Events Chair — 2017 - 2019
- 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