

# CHARLES WANG

University of Pennsylvania, Engineering and Applied Science

B.S.E. Digital Media Design, 2018

M.S.E. Computer Graphics & Game Technology, 2018

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

[charlesliwang76@gmail.com](mailto:charlesliwang76@gmail.com)

<https://github.com/charlesliwang>

## PROFESSIONAL SKILLS

### 3D Software

Maya, Zbrush, Houdini  
Unity, Unreal Engine  
Arnold, Redshift  
Substance Painter

### Languages

C, C++, C#  
Python, GLSL  
Java, Javascript  
HTML, CSS

### Creative Skills

3D Modeling  
Lighting/Lookdev  
Rigging/Animation  
Motion Graphics  
Game Design

### Technical Skills

Virtual Reality  
Rendering  
GPU Programming  
Procedural Graphics  
Game Development  
Pipeline Tools  
Git/Version Control  
Rez Packaging

## WORK EXPERIENCE

### Assistant Technical Director

July 2018 - Present

Method Studios New York, NY

- \* Design and implement artist-facing CG tools to improve workflow efficiency
- \* Facilitate and support visual effects pipeline for commercial and feature work
- \* Support proprietary tools for: color management, lens distortion, footage ingestion

### Teaching Assistant

Jan 2015 - May 2017

University of Pennsylvania Philadelphia, PA

- \* CIS461/561 (Advanced Rendering) Spring 2017
- \* FNAR366 (Advanced Computer Modeling) Spring 2017
- \* CIS460/560 (Interactive Computer Graphics) - Spring 2016, Fall 2016
- \* FNAR235 (3D Computer Modeling) - Fall 2016, Spring 2017

### Programming and Game Design Intern

May 2016 - Aug 2016

BioStream Technologies Philadelphia, PA

- \* Supporting project developing video game therapies for autism
- \* Designed algorithm using performance to scale level difficulty (C#)

### Research Assistant

May 2015 - Dec 2015

CG@Penn - University of Pennsylvania Philadelphia, PA

- \* Built an accurately scaled model of Reading Terminal Market in Unity/Maya
- \* Implemented a heatmapping system with interactive heat sources

## RECENT PROJECTS

### Propuga

Senior Design Project

3D web puzzle game where puzzles are procedurally generated  
Applied Skills: Javascript, 3js, WebGL

### OBSCURA

3D Puzzle/Adventure Game

1st Place Overall Winner at Penn Play Game Jam Spring 2016  
Contribution: Level Design, Modeling, Texturing, Lighting  
Our team later adapted Obscura as a third-person puzzler in Unreal Engine

### Monte-Carlo Pathtracer

Multiple Importance Sampling, Depth of Field, BVH Acceleration  
Later developed a GPU version with BVH acceleration  
Applied Skills: C++, OpenGL, CUDA, QT Creator