

# CHARLES WANG

University of Pennsylvania, Engineering and Applied Science

B.S.E. Digital Media Design, 2017

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

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<https://github.com/charlesliwang>

## Professional Skills

### 3D Software:

**Maya, Zbrush, Unity**

Arnold, Redshift  
mental ray, 3ds Max

Substance Painter

Unreal, Houdini

Substance Designer

### Languages:

**C, C++, C#**

**Java, Python**

Unix, HTML, CSS

Javascript

OCaml, Assembly

Verilog, VHDL

### 2D Software

**Photoshop**

Illustrator

Premiere Pro

After Effects

### Technical Skills

**Mesh Manipulation**

**Rendering**

**Animation**

OpenGL, Procedurals

Fluid Simulation

### Creative Skills

**Character Design**

**3D Modeling**

**Lighting/Rendering**

**Game Design**

Texturing

Rigging/Animation

## Work Experience

### TEACHING ASSISTANT

#### University of Pennsylvania

Jan 2015 - May 2017

\* 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

\* ESE171 (Digital Design Lab) - Spring 2015

### PROGRAMMING AND GAME DESIGN INTERN

#### BioStream Technologies

May 2016 - Aug 2016

\* Supporting project developing video game therapies for autism

\* Unity and C# development

\* Providing creative collaboration on game therapy design and implementation

### RESEARCH ASSISTANT

#### CG@Penn

University of Pennsylvania

May 2015 - Dec 2015

\* Built an accurately scaled model of Reading Terminal Market in Unity/Maya

\* Implemented a heatmapping system with interactive heat sources

## Recent Projects

**OBSCURA (2016) - 3D Puzzle/Adventure Game** - Developed in 24-hours at Penn Play Game Jam with a team of 4

**1st Place Overall Winner** - Contribution: Level Design, Modeling, Texturing, Lighting

Fall 2016 - Our team adapted Obscura as a third-person puzzler in Unreal Engine

**Monte-Carlo Pathtracer (2015)** - Depth of Field, BVH Acceleration - Applied Skills: C++, OpenGL, QT Creator

**Propuga (2017) - Senior Design Project** - 3D web puzzle game where puzzles are procedurally generated

Javascript, 3js, WebGL