

# 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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## PROFESSIONAL SKILLS

### 3D Software

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

### Languages

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

### 2D Software

Photoshop  
Illustrator  
Premiere Pro  
After Effects

### Technical Skills

Rendering  
GPU Programming  
Game Programming  
Procedural Graphics  
Virtual Reality

### Creative Skills

3D Modeling  
Lighting/Rendering  
Texturing  
Rigging/Animation  
Game Design

## WORK EXPERIENCE

### Teaching Assistant

Jan 2015 - May 2017

### University of Pennsylvania

- \* 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

### Propuga (2017)

Senior Design Project

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

### OBSCURA (2016)

3D Puzzle/Adventure Game

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

### Monte-Carlo Pathtracer (2015)

Multiple Importance Sampling, Depth of Field, BVH Acceleration  
Applied Skills: C++, OpenGL, QT Creator