

# CHARLES WANG

## EDUCATION:

University of Pennsylvania  
Engineering and Applied Sciences

### WEBSITE

charlesliwang.com

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### MOBILE

+1 (267) 745-4131

## Bachelor of Science in Engineering Digital Media Design

Expected Graduation: 2017

## Master of Science in Engineering Computer Graphics & Game Technology

Expected Graduation: 2018

## Relevant Coursework:

Advanced Computer Graphics (Rendering) || Interactive Computer Graphics  
Game Design Practicum || Computer Animation || Software Engineering  
Algorithms || Advanced 3D Computer Modeling and Sculpture  
Physically Based Animation (Fluid Simulations) || Data Structures  
Automata, Computability, Complexity || Multivariable Calculus  
Linear Algebra & Differential Equations || Physics I (Mechanics) & II (E/M)

## Professional Skills

Expert - Experienced - Familiar

### 3D Software:

**Maya, Zbrush, Unity**  
mental ray, Mudbox,  
Substance Painter,  
Substance Designer,  
Renderman, Houdini

### Languages:

**C, C++, C#,  
Java, Python,**  
Unix, HTML, CSS  
OCaml, Assembly,  
Verilog, VHDL

### Other Software

**Photoshop, Word,**  
**Powerpoint**  
Illustrator,  
**Premiere Pro,**  
Excel, After Effects

### Technical Skills

**Mesh Manipulation**  
**Rendering,**  
**Animation**  
OpenGL, Procedurals  
**Fluid Simulation**

### Creative Skills

**Character Design**  
**3D Modeling**  
**Game Design**  
Texturing  
Rigging/Animation

**Other Skills** Communication, Project Management, Teaching, Research, Presentation

## Work Experience

### TEACHING ASSISTANT School of Engineering University of Pennsylvania

Jan. 2015 - Present

- \* CIS460/560 (Interactive Computer Graphics) - Spring 2016, Fall 2016
- \* FNAR235 (3D Computer Modeling) - Fall 2016
- \* 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

### TELLER Student Federal Credit Union University of Pennsylvania

January 2014 - September 2014

- \* Worked with FedComp to handle student accounts

## Recent Projects

**OBSCURA (2016)** - 3D Puzzle/Adventure Game  
Developed in 24-hours at Penn Play Game Jam  
with a team of 4 members  
**1st Place Winner**  
Level Design, Modeling, Texturing, Lighting

**Mini Maya (2015)** - Final Project  
Programmed a primitive version of Autodesk Maya  
Mesh Manipulation, Rigging, Animation, Shading  
Applied Skills: C++, OpenGL, QT Creator

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

**Working Dog Center Helper (2015)**  
Worked with a small team to create a dog-treatment  
tracking app for the Working Dog Center in Philadelphia.  
Helps trainers and doctors log and view dog's activities  
Applied Skills: Android, Java, Databasing, UI