# **JONATHAN LEE**

Programmer - Filmmaker

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University of Pennsylvania

### **EDUCATION**

University of Pennsylvania (Philadelphia, PA)

*MSE Computer Graphics and Game Technology* August 2016 — May 2018 (anticipated)

Rutgers University (New Brunswick, NJ)

BS Computer Science August 2012 — January 2016

- Penn SIGGRAPH Member
- Previous Courses: Intro to Computer Graphics, Computer Animation, 3D Modelling
- Dean's List (Fall 2012, Fall 2014, Spring 2015, Fall 2015)
- National Society of Collegiate Scholars, Undergraduate Society of Computer Scientists, Rutgers Animation Club, Intramural Basketball Captain (2012-2015)

### **SKILLS**

Programming Languages	C++, Python, Java	Interests	•	Animation Film/VFX/Photography
Design Software	Maya, Photoshop, Illustrator, Premiere, After	Current Courses	•	Graphic Design Advanced Rendering Advanced Topics in Computer Graphics Video I
Web Technologies	Effects HTML/CSS, Flask, JSP, MySQL, WordPress	Current Courses	•	

## **RECENT PROJECTS**

Mini-Minecraft - C++	<ul> <li>Implemented physics and terrain interaction (gravity, collision detection/interaction, raymarching for creating/destroying blocks)</li> <li>Allows first person, third person, and sandbox camera modes</li> <li>Implemented steering behaviors and animated a dance sequence for NPC cows and birds</li> </ul>	
Mini Maya - C++	<ul> <li>Parses OBJ files and draws onto the screen utilizing a half-edge mesh data structure</li> <li>Successfully subdivides meshes through Catmull-Clark subdivision</li> <li>Parses JSON files to allow rigging and skinning of skeletons onto the mesh</li> <li>Allows users to change weight influence on different joints</li> </ul>	
SteerLite Crowd Simulator - C++	<ul> <li>Fully functional crowd simulator that implemented A*, Social Forces, and GJK Collision Detection.</li> <li>Implemented concave polygon collision detection through</li> <li>Successfully achieved low scoring benchmarks on about 15 test cases</li> </ul>	
RU Studying — Python	<ul> <li>Finds empty classrooms during school hours for students to study in</li> <li>Parses JSON data provided by the Rutgers API</li> </ul>	

## **WORK EXPERIENCE**

# Walt Disney World Resort -

Quick Service Food & Beverage Cast Member Disney College Program Participant January 2016 — July 2016 (Orlando, FL)

## Today's Business —

Digital Developer Intern
May 2015 — August 2015 (Pine Brook, NJ)

- Performed excellent service and interaction to guests daily
- Maintained a well-stocked and "show" ready location
- Worked in a multifaceted team that served thousands of guests each day
- Successfully completed a course in Disney Leadership
- Demonstrated the Four Keys on multiple occasions
- Maintained various web pages for different clients with WordPress
- Designed landing and Facebook pages for clients with Instapage and FalconSocial
- Generated SEO reports with Google Analytics