

# Ben Sheeran

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## EDUCATION

Brown University, class of 2018, Computer Science concentrator, 3.76 GPA

## WORK EXPERIENCE

### **Game Engines Courses Teaching Assistant. September 2016 – May 2017.**

TA in fall 2016 for 2D Game Engines course and Head TA in spring 2017 for 3D Game Engines course, in which students build an entire game engine from the ground up using C++ and OpenGL. Responsibilities include giving lectures, writing and grading assignments, holding office hours and design checks, and providing final project guidance to student groups. Material covered by the course includes collision detection and response, physics, game AI and pathfinding, 3d graphics, and procedurally generated content.

### **SELECTED COURSE WORK**

- Topics in 3D Game Engines – built a custom game engine from the ground up. Covered topics included 3D graphics in OpenGL, GLSL, 3D collision detection and response, path finding, and procedural map generation. My final group project included building a deferred lighting pipeline, Bloom/HDR lighting, particle generation, and shadow mapping. Serving as the head TA and instructor for the course this semester.
- Multiprocessor Synchronization
- Introduction to Computer Systems
- Intro to Computer Animation– an introduction to 3D computer animation pipeline, including modeling, texturing, lighting, animating, rendering, and editing with an emphasis on building proficiency with Autodesk Maya. Culminated in short film made in its entirety by two other

### **Brown University Graphics Lab Research Assistant. Summer 2015 - spring 2016**

Worked under Andy van Dam doing research into pen and touch applications. Project involved designing an electric whiteboard application to facilitate small group collaboration and academic research, with a focus on large scale touch displays. Learned about UX design and software engineering. Main application developed using Microsoft's Universal Windows Platform (C# and XAML).

- students and myself over the course of 6 weeks.
- Interactive Computer Graphics – A graduate level course on computer graphics (currently taking)
- Topics in 2D Game Engines (course taken fall 2015, TA'd in 2016)
- Computational Linguistics
- Data Structures and Algorithms
- Designing, Developing, and Evaluating User Interfaces
- Intermediate 3D Computer Animation (currently taking)
- Introduction to Discrete Structures and Probability

## **SKILLS**

Programming Languages: Proficient in Java, C++, C#, C, GLSL

Frameworks/APIs: OpenGL, .NET, WPF, WinRT, Java AWT, Qt

Tools: Autodesk Maya, Adobe After Effects, Adobe Illustrator, ZBrush, Unreal 4, Qt Creator, Visual Studio

Other: Proficient in Japanese (9+ years of experience, studied abroad summer 2016)

## **PERSONAL**

Member of Brown RISD Game Development, a group that meets weekly to collaboratively develop multiple games a year.

Executive board member of the Brown Queer Alliance, a group that does advocacy and programming for LGBTQ students on campus.