

# ANDREW ECCLES

aoe3@cornell.edu | andrewe.cc | github.com/aoe3 | linkedin.com/in/andrewoe

## EDUCATION

Cornell University, B.A. Information Science

8/13 – 5/17

## WORK EXPERIENCE

### Cornell Institute for Healthy Futures (CIHF) – Web Developer

2/16 – 5/17

- Used HTML/CSS to build and conduct maintenance on website visited by companies working with the institute, such as: Deloitte, Hilton, Perkins Eastman and Cancer Treatment Centers of America.
- Expanded the former shell of a WordPress site to the current structure used today.

### Cornell University Department of Computing & Information Science – Teaching Assistant

1/17 – 5/17

- Assisted in lectures of 300 students by spotting students having trouble following along and helping them debug their code.
- Provided assistance on weekly homework relating to the D3.js library, ranging from explaining data visualization concepts to finding bugs.

### Safe Space NYC – Group Leader

6/14 – 8/14

- Helped students retain knowledge and prepare for entering next grade through daily lesson plans.
- Coordinated field trips to help foster an appreciation for various cultures/scientific disciplines.

## PROJECTS

### Mesh Generator(Java; team of two)

- Built a mesh generation/processing utility that could approximate curved surfaces.
- Final product could read/write meshes in OBJ format, calculate vertex normals, and apply textures.

### Ray Tracer(Java; team of two)

- Constructed a light-ray generation/intersection interface for rendering scenes in XML files.
- Handled antialiasing and point and area light sources to illuminate objects, including glass.
- Used an accelerated tree structure to represent scenes, so as to increase performance time.

### Shader(three.js, WebGL; team of two)

- Implemented Cook-Torrance shader with texture-mapped diffuse component.
- Created specular reflection under environment lighting, as well as a normal mapping shader.
- Built a displacement mapping shader to increase perception of textures.

### Chalk Printer(Arduino, 3D-printing; team of three)

- Took concept of chalk printer from idea to fully-functional product
- Final product could print letters, numbers, punctuation, and some emojis.

### Bigfoot Sightings(HTML/CSS, d3.js; team of three)

- Link: <http://andrewe.cc/files/bigfoot/index.html>
- Cleaned large data files to pinpoint location of Bigfoot sightings across the U.S.
- Used D3 to compare findings with data about weather, population, etc., to spot correlations.

### GEN1(Balsamiq, inVision, IRB research guidelines; team of five)

- Link: <https://projects.invisionapp.com//share/9T9HXZV2E#/screens>
- Conducted user research with first-generation college students to identify problems with adjusting
- Prototyped a mobile app for connecting first-gen students with one another and providing resources

## SKILLS (listed in order of proficiency)

**Languages:** HTML/CSS, JavaScript, D3.js, Java, SQL, Arduino, Python, Node.js, React.js

**Software:** Adobe After Effects, Autodesk Inventor, Adobe PhotoShop

**Other:** 3D-Printing, Prototyping

## EXTRACURRICULARS

### Cornell Wushu – Public Relations/Media Director

- Practiced 3-4 times a week; taught the style known as nanquan (南拳), or southern fist
- Increased club visibility through consistent interaction with public via Facebook and YouTube
- Managed club website and YouTube channel with quick updates whenever necessary