

ANDREW ECCLES

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EDUCATION

Cornell University, B.A. Information Science

8/2013 – 5/2017

WORK EXPERIENCE

Cornell Institute for Healthy Futures (CIHF) – Web Developer

2/2016 – 5/2017

- 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

1/2017 – 5/2017

- Assisted in lectures of 300 students by spotting those struggling to follow along & helping to debug code.
- Held weekly office hours for homework/project help: taught D3, critiqued visualizations' usefulness, and helped with troubleshooting code.

Safe Space NYC – Group Leader

6/2014 – 8/2014

- 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, Java, SQL, Python

Frameworks/Libraries: D3.js, jQuery, Arduino, 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.