Ellen Lo

Boston, MA
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A computer engineer passionate about storytelling through interactive compositions and creating with emerging technologies to reimagine digital experience

Portfolio / Github / Linkedin

EDUCATION

Boston University Boston, MA — Expected May 2019
Bachelor of Science in Computer Engineering
GPA — 3.50

EXPERIENCE

Volvox Labs, New York, NY — May - Aug 2018
Developer Intern
Developed sound-reactive and distance-reactive installations (Motion and Fluid) using Arduino, Raspberry Pi, servo motors, programmable LEDs, PixelPusher and LiDAR.
Experimented with kinetic lights and power winch system via DMX communication protocol with TouchDesigner.

Boston University School of Theatre, Boston, MA — Sep 2018 - Present
Creative Developer
Designed and developed series of immersive, generative graphics with openFrameworks for Clay Hopper's theatrical adaptation of George Orwell's dystopian novel 1984.
Implemented computer vision algorithms with Kinect and OpenCV libraries to track actors' gestures and map them into interactive graphics.

pill & pillow, Hong Kong — Jun - Aug 2017
Programmer Intern
Developed experimental VR projects with HTC Vive and Leap Motion in Unity as a means to expand client market.
Created experience design prototypes with openFrameworks and Screenflow for Very Hong Kong Very Hong Kong exhibition website.

Boston University Image and Video Computing Group, Boston, MA — Feb - May 2018
Undergraduate Research Assistant
Implemented head gestures recognition model with OpenCV to map user commands such as selecting and cancelling for people with motor impairments.
Processed user gaze data given by Tobii Eye Tracker and mapped gaze location to components on Qt interface for selection.

PROJECTS

Axis Mundi (Front-end development) *In progress*
Using HTML5, CSS3, and jQuery to create interactive website for a hypothetical exhibition Axis Mundi featuring my artworks Fluid and Motion axis-mundi.github.io

Portfolio site design (Front-end development)
Using HTML5, CSS3, and Three.js to create portfolio site ellenlowing.github.io

Motion (Kinetic sculpture)
Using Arduino, servo motors, and various fabrication technologies to create a kinetic sculpture that embodies the motion of sea waves github.com/ellenlowing/servo

Fluid (Interactive installation)
Using programmable LEDs, LiDAR, and TouchDesigner to create an interactive installation that represents fluid as an everchanging form vimeo.com/298233660

woodpeckersPro (Physical computing)
Using Arduino, sensors, and electronic components to build a device that detects and deters woodpeckers for house protection github.com/ellenlowing/woodpeckersPro

Embedded Pong (Physical computing)
Using Kinect and Qt to create a single player motion-controlled Pong game on LCD screen through Gumstix tinyurl.com/ychw53g6

Kinetic Winch Maker Kit (Physical computing) *In progress*
Using stepper motors and custom 3D-printed spools to build winch and customize Arduino libraries for the maker community to install moving lights as alternative home decoration

Virtual Ball Pit (Virtual Reality experience)
Using Unity (C#) and HTC Vive to create an immersive ball pit in virtual reality github.com/ellenlowing/ball-pit

StreetArtPhobiaPhobia (Augmented Reality experience) *In progress*
Using ARKit to create augmented street art on Hong Kong urban landscape as a response to the government ripping off French undercover artist Space Invader's mosaics

SKILLS

Creative openFrameworks, Processing, TouchDesigner, Arduino, Raspberry Pi, Max/MSP, Unity, Three.js, OpenGL, Sketch, Adobe XD

Programming C/C++, Python, OpenCV, Javascript, Node.js, HTML, CSS, Qt

Language Cantonese (native), English (fluent), Mandarin (fluent), Japanese (conversational)