



ADIEL FERNANDEZ

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(646) 372-5758

EXPERTISE

Computer Vision
Interactive Systems Design
Tangible User Interfaces
Physical Computing
Creative Coding

HARDWARE

Arduino
Raspberry Pi &
Embedded Linux systems
Schematic & Circuit Design

CODE/SOFTWARE

OpenFrameworks/C++
OpenCV
Processing
Cinder
Shaders/GLSL
Adobe Creative Suite
Git/Github
HTML-CSS
JavaScript

FABRICATION

3D Printing (FFF/FDM)
Slicing Engines (various)
OpenSCAD 3D Modeling
Laser Cutting and
Vector Design (Illustrator)
Traditional Fabrication
(Wood & Metal Work)

PERSONAL

Passionate
Highly Detail Oriented
Excellent Verbal & Written
Communication Skills
Fast Learner
Teaching & Public Speaking

EXPERIENCE

DEVELOPER (C++)

APR. 2017 - ONGOING (JUNE 2017)

Audio, Video & Controls

- Sensor system design and implementation for high-end commercial showroom.
- Integration of computer vision data (multiple KinectV2) cameras and real-time location tracking system (Bluetooth) data to achieve accurate spatial tracking of users with unique identification from user to user.

DEVELOPER (C++)

MARCH 2017 - APR. 2017

Hypersonic

- Computer vision system for control of art installation for world-renowned artist.
- 6 infrared cameras detect users in gallery and send OSC triggers to control central object.
- App features: dynamic stitching of feeds into single output, intelligent background differencing, drawable masking, dynamic camera addressing, fully configurable detection zones.

DEVELOPER (ELECTRONICS)

MARCH 2017

Risen From The Thread

- Electronics design and programming of LED suits for dance performance at large corporate convention.
- 8 suits, 350 LEDs each, with spatially-mapped animations in sync with performance.

INTERACTION DESIGNER/DEVELOPER

SEPT. 2016 - JAN. 2017

Art Commission for The EdLab, Teachers College, Columbia University

- Created "*Collective Wisdom*", an interactive, projection-mapped, Victorian-era library.
- Users contribute "wisdom" via mobile-friendly website and generate books on library shelves to add to curated collection of scholarly content.
- Three depth sensing cameras allow touch detection over different types of surfaces in library.

DEVELOPER (C++)

JAN. 2016 - JUNE 2016

Audio, Video & Controls

- Single handedly developed large scale computer vision system for high traffic, commercial space in Washington DC.
- 14 infrared cameras in 6 separate corridors for a total of 1,700 sq. ft. of interaction space.
- Custom algorithms for people finding and data filtering.
- Features such as image warp/correction, mask drawing, intelligent background differencing and camera stitching all done in real time on single, multi-threaded computer.

ADJUNCT FACULTY

FALL 2014 - FALL 2016

Parsons School of Design

- Teach several MFA level courses on design and technology: Physical Computing, Physical Computing Advanced, Creative Coding (Processing, C++).

EDUCATION

PARSONS SCHOOL OF DESIGN

2012-2014

- Master of Fine Arts in Design + Technology

THE CITY COLLEGE OF NEW YORK, CUNY

2002-2007

- Bachelor's of Science in Physics