

EDUCATION

- 2015-2017 Experiential Art & Design, Bachelors of Arts, Carnegie Mellon University**
Self-defined from the start, my major is the culmination of rigorously interdisciplinary studies pursuing the expertise to develop interactive tools, systems and experiences across virtual and tangible media.
+ Capstone Project: *Sketches of Self: On the Potential of Introspective Algorithms*.
+ University Honors, 4.0 GPA
- 2013-2014 Psychology of Design (intended major), Brown University + Rhode Island School of Design**
Attended for one year, before leaving to develop a better context for my education.

EXPERTISE

Software Development

Languages: C, C#, C++, GLSL, Python, Javascript, Java, HTML/CSS, Bash

... for Generative Graphics

Realtime frontend interactive systems with high-performance graphics. User-centric, parametric design for content-heavy, long-lifespan installations and exhibits. CI/CD workflows.

Frameworks: OpenFrameworks, Unity, Processing, p5.js, three.js, WebGL, JQuery, React

... for Computer Vision

Algorithm design, machine learning and data processing for realtime sensing systems (e.g. optical tracking, motion capture), bespoke user-interfaces and imagery generation.

Frameworks: OpenCV, Tensorflow, Pytorch, Keras, Caffe, NodeJS, AWS, SQL, ELS, Docker

Experiential Design

Designing interactions (UX/UI) across physical + digital systems; Systems as ecologies. Proof-of-concept prototypes, storyboards, wireframes, user-flow diagrams. *Tools: Adobe Creative Suite (Ps, Ai, Id, Pr, Ae), G Suite*

Computational Design + Digital Fabrication

Parametric 3D modeling and rendering for product design. CAD/CAM for CNC robotics. Physical computing and IOT for personal electronics. *Tools: Rhino+Grasshopper, Fusion360, Houdini, C4D, Arduino, RPi*

Perceptual Psychology

Modeling cognitive processes and visual phenomena with biologically-inspired algorithms.

Designing agency and animacy into artificial systems.

PROFESSIONAL

- 2019-present Creative Technologist, Local Projects**
Develops visual software applications for interactive museum exhibits and branded marketing experiences. Oversees concept (prototyping, UX flows) through production (AV specifications, deployments). Designs computer vision and machine learning algorithms for bespoke sensing systems. Clients include Greenwood Rising, Planet Word, Manchester United, L'Oreal, ABB and others.
- 2018 Innovator in Residence, Autodesk**
As one of nine individuals selected to use Autodesk's Pier 9 manufacturing shop, I pursued self-directed research projects including creating generative AI sculptures and revealing the fingerprints of machines.
- 2017 Software Developer Intern, Troika**
Developed custom software for the London-based artist studio, including desktop applications for motion capture, algorithms for 3D model slicing and particle simulations.
- 2016 Software Developer, ATONATON**
Programmed the vision and emotional decision making system of a giant interactive industrial robot. Named Mimus, the robot premiered at the London Design Museum's opening exhibition.
- 2016 Interaction Design Intern, IDEO Cambridge**
Reimagined the future of an industry for a world-leading manufacturer by conducting design research, concepting experiences, and fabricating physical and digital prototypes.
- 2014-2015 Junior Creative Technologist & 72U Resident, 72andSunny**
Conceptualized and designed advertising brand campaigns for Google's educational initiatives.