

## Experience

### **Stupid Fun Club, Designer/Prototyper** *Summer 2010 - current*

- Brainstormed and conceptualized hundreds of toy products
- Prototyped selected concepts and pitched these products to major toy companies
- Designed optics for Ant Farm Revolution prototype, currently available online and in stores
- Created virtual games and game mechanic demos for toys, iOS, PC and other platforms
- Developed Arduino based hardware technology for pilot TV show, currently in development

### **CMU Robotics Institute, Gamebot Project** *Winter, Spring, Summer 2009*

- Developed with a research team a robot to play multiplayer games on a Microsoft Surface
- Designed fully actuated robot neck capable of executing human-like movements
- Worked with vendor engineers to procure essential components, provided drawings and instruction for outsourced machining

### **Energy Innovations, Systems Engineer** (a solar energy company) *Summer 2007, Spring 2008*

- Outlined quality control tests for optical receivers
- Researched and designed methods for alternative thermal cooling in solar concentrators

## Projects

### **Barcelona ZooXXI Project Team** (CMU graduate student project) *Spring 2010*

- Researched, programmed and designed prototypes for the client, Emotique
- Wrote data catching program with Twitter API using Python, HTML, PHP and SQLite

### **California Academy of Sciences Project Team** (CMU graduate student project) *Fall 2009*

- Acted as producer for client project, blue-sky conceptualization and logistics for a new exhibit
- Managed a small team in ideation and producing client presentation
- Created a long term plan of action, established a relationship between the Academy and CMU
- Successfully pitched a new Avatar and Achievement system for the Academy

### **YouMedia Project Team** (CMU graduate student project) *Winter, Spring 2009*

- Designed a physical space to complement a methodology and curriculum for teen activities at the Chicago Public Library (completed Summer 2009)
- Handled logistical and technical design issues during implementation and construction

### **Caltech RoboCup-Rescue Team, Team Leader of Mechanical Design** *Winter 2006 – Summer 2008*

- Led mechanical team in design and construction of a mobile rescue robot for disaster scenarios

## Education

### **Carnegie Mellon University**, Graduated *Summer 2010*

- Masters in Entertainment Technology from the Entertainment Technology Center

### **California Institute of Technology**, Graduated *Summer 2008*

- B.S. Mechanical Engineering (personal focus in robotics)

## Skills

**CAD/CAM:** Solidworks (*advanced*), TurboCAD/CAM, Autodesk Inventor

**Languages:** Arduino/Processing, GCODE, Javascript, Python, HTML, C#

**Design Software:** Adobe CS Suite, Unity, 3D Studio Max

**Other Software:** Mathematica, Matlab, Microsoft Office

**Machining Experience:** Proficient with lathe and mills. Basic experience with CNC using gcode cam output, primarily for rapid prototyping. Material experience includes aluminum, steel and wood

**Electronics Experience:** Familiar with prototyping electrical/embedded systems such as Arduino, Phidgits, and Pololu boards. Comfortable with soldering and general wiring.