

CAMERON BROWNING

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portfolio cameronbrowning.com/portfolio

code github.com/camb416

EXPERIENCE

Web Development Manager, Solomon R. Guggenheim Museum: *October 2013–Present*

- > Lead development of new features on large-scale, award-winning web properties.
- > Manage development and maintenance on suite of APIs serving mobile app platforms.
- > Work with curatorial on integration of collection systems with web and app channels.
- > Manage development team and external technical contractors.
- > Liaise with IT department on dev process and production infrastructure requirements.

Media Developer, American Museum of Natural History: *June 2009–October 2013*

- > Lead Software Developer for interactive exhibits and special exhibitions.
- > Establish and oversee asset production pipelines.
- > Project management of exhibitions and interactive exhibits.
- > Projects include computer vision systems, kiosks and custom electronic exhibits.

Co-Founder & Tech Lead, Fantasticsmag.com: *December 2005–Present*

- > Oversee day-to-day operations of style and culture publication.
- > Design and develop content-driven presentation methods for new media content.
- > Work with Editorial Director to create and manage editorial content.
- > Establish production standards used by editorial teams.

Adjunct Faculty, Parsons The New School for Design: *July 2007–April 2009*

- > Teach graduate and undergraduate classes on interface design for web and mobile devices.
- > Developed and taught workshops on prototyping open-source hardware interfaces.

Interaction Designer, Unikron Incorporated: *December 2005–August 2006*

- > Creative direction and design of dynamic, database-driven websites.
- > Designed and oversaw production of interactive touchscreen installations.
- > Led production teams of designers and developers.

Interactive and Print Designer, Day Job Magazine: *July 2003–June 2006*

- > Development of digital presence and online store.
- > Design of SPD award-winning fashion/lifestyle magazine.
- > Worked with Creative Director in conceiving overall design and conception of content.

EDUCATION

MFA in Design & Technology, Parsons The New School for Design: *2008*

- > Dean's List Scholar

Bachelor of Design, Honors, York University: *2005*

- > Dean's Honor Roll, Cum Laude

SELECTED AWARDS

Webby Award Nominee, *2013 & 2014*

MUSE Award, *2013*

Communicator Award, *2010 & 2011*

Society of Publication Designers, *2009*

IronFlash Invitational, *2004*

TECHNICAL SKILLS

Languages and Frameworks

AngularJS	Javascript
Arduino	MySQL
AS 3.0	NodeJS
Bash	openFrameworks
Cinder	PHP
CSS	Processing
C/C++	Python
C#	Ruby
HTML	.NET

Content Management Systems

WordPress
Drupal
Joomla

Design Software

After Effects
Blender
Eagle PCB
Flash
Illustrator
InDesign
Photoshop

INTERN AND ASSISTANT POSITIONS

SPIN Magazine, 2005

COMPLEX Magazine, 2004

BUYBUDDY.com, 2001

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SELECTED PROJECTS (1 OF 2)

NEURON GESTURE TABLE

An interactive, multi-user table with custom computer-vision software and hardware. Designed and developed for the American Museum of Natural History's *Brain: The Inside Story* exhibition, this table simulates the process by which neurons grow and connect with one another. Users' hands become neurons when they place them above the table. How many connections can you make!?!

Installed at AMNH Nov. 2010 – June 2011

TECH DETAILS

The table uses a custom C++ backend using Intel OpenCV and openFrameworks to make best guesses as to the locations of visitors' hands using a custom infrared hardware design. A custom UDP protocol then sends these positions to a display machine that runs a dynamic system that renders neurons. The axons and dendrites in the system mimic the behavior of those in the Brain, where dendrites reach out to meet axons. Neuron action potential is rendered with flashing paths of light that build up the more visitors play with the installation.

MY ROLE

I pitched the original concept for the interactive, constructed prototypes using custom infrared camera hardware, developed the vision and display software applications, and designed the user interface elements using Adobe Creative Suite.



Neuron Gesture Table

DINOCUE

A custom show-control application for controlling gallery lights, captioning devices and projecting 3D animated organs and interpretation onto a full-size Mamenchisaurus model.

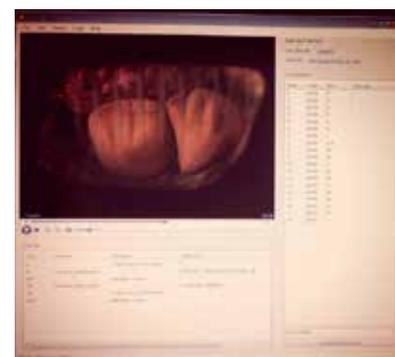
Installed at AMNH May 2011 – Jan 2012

TECH DETAILS

In designing a centerpiece for the *World's Largest Dinosaurs* exhibition, curators sought to have the giant dinosaur model to come alive through projection, animation and lighting. Tying all the lighting together required an adjustable system for controlling narration volume, vibrating Buttkicker speakers in the seating, a moving DMX spotlight, and a captioning device to sync with a cross-section animation of the organs of the dinosaur. No hardware device could serve all of these purposes, so I designed a system (*Dinocue*) with a central Windows-based "conductor" application that sent serial data throughout the gallery to a variety of devices that could take their cues from the central server. A live information screen allows AV technicians to check that all the devices are matching their cues.

MY ROLE

I developed the custom software application using C# and .NET and designed the custom Audio/Visual technician interface using Windows Forms.



Dinocue

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SELECTED PROJECTS (2 of 2)

FANTASTICSMAG.com

One of the top exclusively-online fashion publications, FANTASTICS began as a section in Day Job Magazine (2001 – 2006) . Publisher James Nixon saw the editorial potential of the section and launched FANTASTICS in 2005 with Day Job Designer Cameron Browning. Today, FANTASTICS boasts an editorial team on both coasts, thrice-weekly exclusives, and a dedicated, cosmopolitan readership of over 150,000 visitors every month.

TECH DETAILS

Fantastics began as a **Movable Type** blog in 2005 that offered exclusive fashion and feature stories, presented with large format images. By 2007, our traffic had grown significantly, so I spearheaded a move to a **Drupal**-based CMS that was easier to scale affordably, and allowed us to design a bespoke editorial flow. On the front-end, we redesigned the reading experience with a custom **single page application** written in **Javascript** and **JQuery**. While this technique dropped our pageview metrics at the time (by a factor of 5-10), our unique visitors subsequently shot up 200%. We are presently migrating the Fantastics back-end system to **Wordpress**, while reworking the templates for take advantage of responsive layout techniques (expected early 2016).

MY ROLE

I co-founded the publication with the Creative Director, James Nixon in 2005 and have lead all of the web design and development on the front and back end of the website since. Over the years I have also been responsible for editorial design, and creative direction of the New York-based fashion productions on an as-needed basis.

TERRAFORMING TABLE

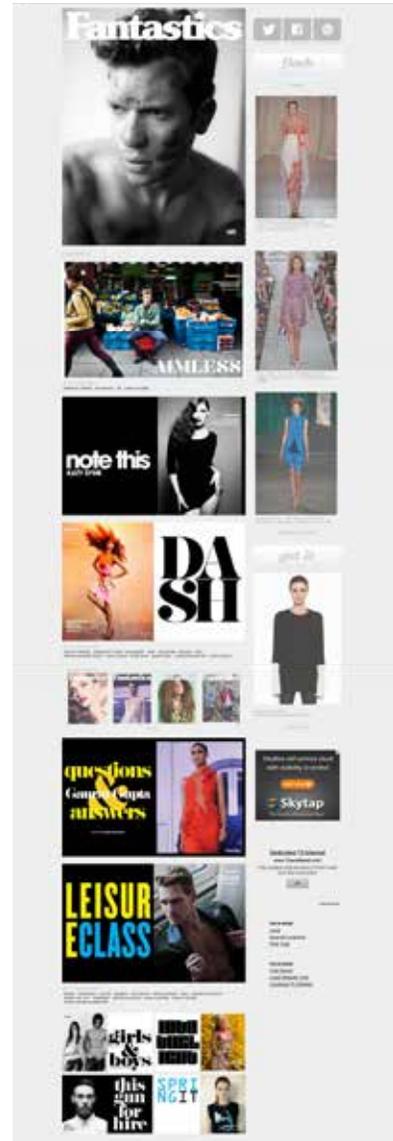
A multi-user interactive touch table where visitors to the *Beyond Planet Earth: The Future of Space Exploration* exhibition can work together to terraform Mars from a cold, lifeless planet to a warm world with a sustainable ecosystem. The piece presents a fun, collaborative activity based on a scientific paper by NASA scientist Chris McKay. New York Times Science Journalist, Dennis Overbye called the activity “the high point” of the exhibition. (New York Times, November 15, 2011)

TECH DETAILS

The table computation hardware consists of two Windows 7 machines, one running **Community Core Vision** software to translate an infrared video image into a series of touch points that are sent through **UDP** to an **Adobe Flex** front-end. The front-end has a number of site-specific features including an interactive “quad cropper” mode where AV technicians can compensate for projector keystoneing, and draggable user areas for precise positioning of users for optimal viewing and exhibition traffic flow.

MY ROLE

I developed the game software using **Actionscript 3.0** and **MXML**, and prototyped the custom multi-touch table hardware.



Fantasticsmag.com



Terraforming Table