GUILLERMO BERNAL

89 Newton St, Apt 1R,
Somerville, MA 02143
718.844.4532
gbernal@mit.edu

EDUCATION

Master's Degree in Architectural Sciences : Design & Computation   MIT, 2012-2014
-The majority of classes taken during my tenure at MIT were Computer Science and Electrical Engineering
-Served as a Teaching Assistant for the popular class How to Make Almost Anything [fab.cba.mit.edu](fab.cba.mit.edu)

Bachelor's Degree in Architecture with Honors   Pratt Institute, 2006-2010
-One of two to receive the Lee and Norman Rosenfeld Fellowship for Excellence in Design

Associate's Degree in Architecture   Mercer County Community College, 2003-2005
-Graduated at top of class and my work was place on display for incoming student orientation

EXPERIENCE

Research Assistant at Mobile Experience Lab   MIT, 2013-2015
-Currently developing wearable technology using biometric sensors.
-Created hardware and software prototypes to demonstrate screen interfaces and device behaviors to collect data, test feasibility, and allow for rapid evolution of ideas
-Designed user experiences as well as mobile interfaces.

MIT ODGE Fellow, Creative Media Manager   MIT, 2012-2013
-Created and designed engaging and eye-catching marketing campaigns that informed and engaged graduate students more efficiently.

SmartGeometry 2013 International Advisory Board   MIT, 2012-2013
-Helped with the selection process for new clusters
-Advised students how to navigate through the one week workshop

Digital Fabrications Instructor   Rensselaer Polytechnic Institute, 2010-2012
-Supervised shops and oversee student monitors to maintain efficient student facilities
-Taught students various fabrication techniques through the use of multiple materials in the Wood Shop, Laser Cutting Shop, 3D printing Lab, CNC Milling Lab, and Ceramics Lab

Project Architect   Evan Douglis Studio LLC, 2009-2012
-Developed fabrication methods that incorporate experimental materials to execute rapid prototypes of architectural elements at various scales
-Designed installations and competition entries through the use of both traditional and analog drawing methods as well as abstract, digital scripting program

SKILLS

Proficiently trained in scripting languages, as well as 3D modeling, rendering, and animation software including:

Programming

-Python
-Arduino
- C
-Javascript
-MATLAB
-HTML/CSS

CAD

-EAGLE
-Grasshopper
-Rhinoceros
-3DSmax
-Maya
-AutoCAD
-V-Ray
-Maxwell
-Adobe Master Suites

Fluent in both English and Spanish

Well, trained in:

-PCB Making/SMD assembly
-CNC milling
-Casting / silicone, slip and
  plaster
-Laser Cutting
-3D Printing
-Vacuum Forming
-Woodworking
-Metalworking
-Pottery

Robotic systems:

-ROS
-7 axis KUKA

AWARDS/PUBLICATIONS

- Augmenting Manual Fabrication Learning Processes : 16th International Conference Interacción 2015
- EMG-based biofeedback tool for augmenting manual fabrication and improved exchange of empirical
- Master of Science in Architecture Studies Prize for Thesis—In recognition for the best SMArchS theses
- Something About Craft : Workshop Proceedings of the 9th International Conference on Intelligent Environments
- ACADIA 2012 Project presentation: Reactive Acoustics
- SmartGeometry 2012 Cluster Champion
- Manta: Responsive Acoustic Surface featured in archdaily.com
- Lee and Norman Rosenfeld Fellowship for Excellence in Design
- Exocarp chair featured in blogs including evolo.com; design-milk.com; etc
- Design work published in the book IDEA_(UTOPSY)
- Design work published in InProcess in 2007, 2008, 2009, 2010 by Pratt Archive
- Recipient of Presidential merit-based Scholarship and maintained a GPA above 3.7 in a 4.0 scales for entirety of schooling
- Thesis project featured on:
  -http://boiteaoutils.blogspot.com/2010/07/circus-spectacle-edge-by-guillermo.html
  -http://www.suckerpunchdaily.com/2010/08/24/circus-on-the-edge/

SPEAKER

- EmTech Colombia 2015
- Design Driven Innovation Conference
- 16th International Conference Interacción 2015