

# Guillermo Bernal

RESEARCH ASSISTANT, MIT MEDIA LAB



## WHY ME?

I'm currently conducting research at the Fluid Interfaces Group. Since my arrival at MIT, I have been able to take amazing classes where I have learned all kinds of cool things, ranging from working with industrial robots and used A.I. Algorithms, to physical computing and using digital fabrication as a means to interact with the world. My work focuses on the back and forth between the physical and the virtual by exploring embodiment and experiences that address the augmentation of ourself as technology is integrated in our lives.

## CONTACTS

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## PROFESSIONAL SKILLS

C / C++	● ● ● ● ○ ○ ○
Python / Jupyter	● ● ● ● ● ● ○
Javascript	● ● ● ● ● ○ ○
Unity	● ● ● ○ ○ ○ ○
Unreal Engine	● ● ● ● ● ● ○
Adobe CC Suit	● ● ● ● ● ● ●
HTML/CSS	● ● ● ● ○ ○ ○
Maya / 3DsMax	● ● ● ● ● ● ○
Rhinceros	● ● ● ● ● ● ○
Matlab	● ● ● ● ○ ○ ○
PCB Design / Making	● ● ● ● ● ○ ○
Woodworking / Metalworking	● ● ● ● ● ● ○
3d Printing /Laser Cut/ CNC	● ● ● ● ● ● ○

## LANGUAGES

Spanish	● ● ● ● ● ● ○
English	● ● ● ● ● ● ○
Italian	● ● ○ ○ ○ ○ ○

## WORK EXPERIENCE

YEARS / TIME FRAME

WHERE

**2.5** **SEP 2013 / APR 2016**  
**RESEARCH ASSOCIATE** at MIT Design Lab Boston, MA

- Developed wearable technology with 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.

**1.0** **SEP 2012 / APR 2013**  
**CREATIVE MEDIA MANAGER** at MIT ODGE Boston, MA

Created, designed and managed engaging and eye-catching marketing campaigns for the office of the dean for graduate education that informed and engaged graduate students more efficiently.

**2.0** **JUN 2010 - AUG 2012**  
**DIGITAL FABRICATIONS INSTRUCTOR** at RPI. Rensselaer, NY

- Taught a class at Rensselaer Polytechnic Institute that teach students various fabrication techniques through use of multiple materials in the Wood Shop, Laser Cutting Shop,3D printing, CNC Milling Lab, and Ceramics Lab.
- Supervise shops and oversee student monitors to maintain efficient student facilities

**2.0** **JUN 2010 - AUG 2012**  
**PROJECT ARCHITECT** at Evan Dougliis Studio Rensselaer, NY

- Use research to develop fabrication methods that incorporate experimental materials to execute rapid prototypes of architectural elements at various scales
- Design of installations and competition entries through the use of both traditional, analog drawing methods as well as abstract, digital scripting programs

## EDUCATION

### M.S: MEDIA ARTS & SCIENCES

RELEVANT COURSEWORK

Media Lab, Fluid Interfaces Group  
Massachusetts Institute of Technology  
Cambridge, MA  
2016 / ...

Sens Tech Interact Environs (MAS.836)  
Computational Cognitive Science (6.804)  
Systems Neuroscience Lab (9.17)  
Human Machine Symbiosis (MAS.S60)

### M.S: DESIGN AND COMPUTATION

Massachusetts Institute of Technology  
Cambridge, MA  
2012 / 2014

Artificial Intelligence (6.034)  
How to Make Almost Anything (MAS.863)  
Laboratory Electronics (HAA.0864)  
Tangible Interfaces (MAS.912)  
Human 2.0 (MAS.600)

### BARCH: ARCHITECTURE

Pratt Institute  
Brooklyn, NY  
2006 / 2010

## AWARDS / PUBLICATIONS

**NSF TRAVELING AWARD**  
**PETRA CONFERENCE DOCTORAL CONSORTIUM**

**RECOGNITION FOR THE BEST MASTER THESES**  
**MASTER OF SCIENCE STUDIES PRIZE FOR THESIS**

**LEE AND NORMAN ROSENFELD FELLOWSHIP**  
**FELLOWSHIP FOR EXCELLENCE IN DESIGN**

**EMOTIONAL BEASTS: VISUALLY EXPRESSING EMOTIONS THROUGH AVATARS IN VR**  
**CHI CONFERENCE EXTENDED ABSTRACTS ON HUMAN**

**THE TEMPORAL LIMITS OF AGENCY FOR REACHING MOVEMENTS IN AUGMENTED VR**  
**IEEE INTERNATIONAL CONFERENCE ON SYSTEMS, MAN, AND CYBERNETICSFACTORS IN COMPUTING SYSTEMS**

**SAFETY++. DESIGNING IOT AND WEARABLE SYSTEMS FOR INDUSTRIAL SAFETY**  
**INTERNATIONAL CONFERENCE ON PERVASIVE TECHNOLOGIES RELATED TO ASSISTIVE ENVIROMENTS**