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**EDUCATION**

M.S. in Electrical and Computer Engineering (2006)  
Carnegie Mellon University - Pittsburgh, PA  
Thesis Title : *Regular Circuits: Enabling Statistical Analysis and Design Using Characterizable Logic Bricks*

B.S. in Electrical and Computer Engineering (2004)  
Carnegie Mellon University - Pittsburgh, PA

**RELEVANT  
COURSES**

Object-Oriented Programming	Analysis and Design of Digital Circuits
Fundamental Data Structures & Algorithms	Digital Computation
Principles of Functional Programming	Signals and Systems
Introduction to Computer Systems	VLSI CAD: Logic to Layout

**PUBLICATIONS**

"Maximization of Layout Printability/Manufacturability by Extreme Layout Regularity",  
Journal of Micro/Nanolithography, MEMS and MOEMS, Vol 6, 2007.

"Design Methodology for IC Manufacturability Based on Regular Logic Bricks", Design  
Automation Conference, June 2005.

**PATENTS**

"Robot",  
USPTO number : 9358475, June 2016. Assignee: Beatbots, LLC.

"Systems and methods for calibrating light sources",  
USPTO number : 9157795, October 2015. Assignee: Bot & Dolly, Llc

"Method and system for grouping logic in an integrated circuit design to minimize number  
of transistors and number of unique geometry patterns",  
USPTO number : 7827516, November 2010. Assignee: Pdf Solutions, Inc.

**WORK  
EXPERIENCE**

**ThoughtWorks, São Paulo, Brazil**

**Senior Developer Consultant (2019 - 2020)**

Designed and programmed front-end user interfaces for commercial projects using  
frameworks like **Angular** and **React**, while following DevOps practices of Continuous  
Delivery and Integration.

**ThoughtWorks, São Paulo, Brazil**

**Senior Developer/Event Producer (2017 - 2019)**

Responsible for planning, organizing and executing events for executive and technical  
communities. In addition to the event planning, was also responsible for executing  
interactive projects using web technology and electronics as part of marketing campaigns  
and events. These projects had small teams, short prototyping cycles and tight delivery  
deadlines.

**CPMídias, São Paulo, Brazil**

**Developer/Media Producer (2016 - 2017)**

Worked on the frontend and backend for a custom CMS platform, as well as the frontend  
for a newspaper website. Besides programming, also contributed with interactive content,  
media creation and organization of digital campaigns.

**FACT, Liverpool, England****Researcher in Residence and FACTLab manager (2015)**

Responsible for building and populating FACT's pilot lab for art and technology. Responsible for programming events for the local creative community; providing conceptual, practical and technical advice for emerging artists; planning and delivering workshops and classes related to electronics and programming; documentation and promotion.

**BeatBots, San Francisco, CA****Design Engineer (2013 - 2014)**

Worked on electronics and programming for robotic toy prototypes and other embedded device products. Designed cell phone applications, graphical user interfaces, control interfaces, sensor circuits, circuit boards and mechanical parts for different projects.

**Marginalia+Lab, Belo Horizonte, Brazil****Technical Coordinator (2012)**

Responsible for all technical decisions in an art+technology cultural center. Provided technical advice for the artistic residents, managed the technology and equipment budget, provided technical support during events, workshops and exhibitions, and taught an introductory programming class.

**Monad Design, São Paulo, Brazil****Interaction Design Consultant (2010 - 2013)**

Responsible for the planning, proposal and execution of interactive design projects. I designed and implemented interactive projections, cell phone apps and sensor circuits for clients in architecture, design and advertising firms.

**Museu da Imagem e do Som, São Paulo, Brazil****Technical Assistant (2010 - 2011)**

Responsible for providing technical assistance for projects developed during the museum's residency program. Worked with artists to define and build hardware and software for interactive and electronic art installations.

**PDF Solutions, San Jose, CA****Consultant Engineer (2008 - 2010)**

Focused on adapting commercially available CAD tools (place and route, layout, logic synthesis software) to work with our proprietary design methodology.

**Fabbrix, Pittsburgh, PA****Engineering Researcher (2006 - 2008)**

Conducted research and developed software in the field of integrated circuit design and manufacturing.

**Freescale Semiconductor, Austin, TX****Process Design Intern (2006)**

Responsible for designing circuits and experiments for testing integrated circuit manufacturing processes and the effects of silicon regularity on circuit performance and manufacturability.

## Intel Corporation, Portland, OR

### Circuit Design Intern (2005)

Responsible for testing automation software used in microprocessor design, I also conducted research in the area of integrated circuit manufacturing and circuit design regularity.

## SKILLS

### Programming:

Java: **Android** apps and audio-visual prototyping using the **Processing** environment.

Limited knowledge of **Spring** and **Spring Boot**.

C/C++: **Arduino** and other embedded devices, systems programming, and audio-visual projects using **openFrameworks**.

Python: IoT and web applications using **RaspberryPi** and many flavors of Linux.

Experience with **Django** and **Django CMS**.

JavaScript: Web app back-ends with **node.js** and front-ends with **Angular**, **React** and **Polymer**.

Web: Frontend with HTML/CSS/JS, **jquery**, **bootstrap**, **sass**, as well as experience with templating static sites using **ekyll** and **hexo**.

Databases: Experience with NoSQL databases like **DynamoDB** and **MongoDB**.

DevOps: Experience and enthusiasm for the following services for continuous integration and deployment: **CircleCI**, **TravisCI**, **GitLabCI**, **SnapCI**.

Cloud: Experience with AWS services like **S3**, **Lambda**, **SES**, **DynamoDB** and **Cognito**.

### Hardware/Circuit Design:

Verilog, Synopsys Design Compiler: Experience using hardware description languages and compilers to turn code into hardware.

Eagle, Cadence Suite: Experience with circuit design at the board, component and transistor levels.

### Physical Design:

Fusion360, SolidWorks: Experience designing mechanical systems for fabrication using CNC milling, 3D-printing, and laser cutting.

Fluent in : Portuguese and English

Proficient in : Spanish

## ART RESIDENCIES/ AWARDS

**EAC Salla\_Taller** - Montevideo, UY (03/2021 - 06/2021)

**Zentrum der Netzkunst** - Berlin, DE (03/2020)

**ARE Holland** - Enschede, NL (01/2020 - 03/2020)

**Delfina Foundation Residency** - London, UK (01/2019 - 02/2019)

**FACT BYO Residency** - Liverpool, United Kingdom (07/2015 - 02/2016)

**Impakt WORKS Residency** - Utrecht, Netherlands (05/2015 - 07/2015)

**LABICMX, Ciudadania 2.0** - Veracruz, México (11/2014)

**Unknown Territory Fellow, Hacktory** - Philadelphia, PA (10/2014)

**I+D Residency, Telefónica** - Barcelona, Spain (07/2014 - 08/2014)

**Artist in Residence, Autodesk** - San Francisco, CA (03/2014 - 06/2014)

**VIDA 15.0 Art & Artificial Intelligence Award** - Madrid, Spain (10/2013)

## EXHIBITIONS

**Bubbles In The Air**, bubblesintheair.org - Mexico City, MX (06/2020)

**stick.t.me**, panke.gallery - Berlin, DE (06/2020)

**Signals and Words**, XPO - Enschede, NL (03/2020)

**El Exploratorio: Zona I**, MoLAA - Long Beach, US (04/2018 - 07/2018)

**Periscópio**, EAC - Montevideo, UY (11/2017 - 02/2018)  
**Temporada Paço das Artes 2017**, MIS - São Paulo, BR (10/2017)  
**Unsettled Artifacts**, SIGGRAPH 2017 - Los Angeles, US (07/2017)  
**Mirror Mirror**, MUDAC - Lausanne, CH (06/2017 - 10/2017)  
**Humans Need Not Apply**, Science Gallery - Dublin, IE (03/2017 - 05/2017)  
**MAKING PLANS**, Human Resources Gallery - Los Angeles, US (03/2017)  
**Periscópio**, Galeria Zipper - São Paulo, BR (07/2016)  
**FATA II**, Galpão 27 - Atibaia, BR (06/2016 - 11/2016)  
**Digital POP**, ADAF 2016 - Athens, GR (05/2016)  
**Art Gym**, Tate Liverpool - Liverpool, UK (03/2016)  
**Ob\_ject & Ob\_serve**, A Small View - Liverpool, UK (02/2016 - 03/2016)  
**UnFollow**, FACT - Liverpool, UK (02/2016)  
**Territory of the Imagination**, Rubin Art Center - El Paso, US (11/2015 - 02/2016)  
**Transitio\_MX 06**, Centro Nacional de las Artes - México City, MX (09/2015)  
**Media Art Futures**, Centro Parraga - Murcia, ES (04/2015)  
**Unknown Territory**, CRANE - Philadelphia, US (12/2014)  
**Acciones Territoriales**, Ex Teresa - México City, MX (11/2014)  
**SP\_Urban**, FIESP - São Paulo, BR (11/2014)  
**Laboratório da Destruição**, Nuvem - Rio de Janeiro, BR (09/2014)  
**Multitudes**, SESC Pompéia - São Paulo, BR (06/2014 - 08/2014)  
**Sight & Sound Festival**, Eastern Bloc - Montréal, CA (05/2014)  
**Transmediale'14**, Haus der Kulturen der Welt - Berlin, DE (01/2014)  
**First Friday**, Great Wall of Oakland - Oakland, US (12/2013)  
**Æffect Lab**, Museum Of Latin American Art - Long Beach, US (07/2013 - 01/2014)  
**Festival Nrmal** - Monterrey, MX (03/2013)  
**Live Performers Meeting**, Centro Multimedia - México City, MX (01/2013)  
**Brincadeiras**, SESC Ribeirão Preto - Ribeirão Preto, BR (10/2012)  
**Festival Cidade Eletronika**, Sapucaí - Belo Horizonte, BR (09/2012)  
**Exposición 50 años**, Centro Cultural del Bosque - México City, MX (07/2012)  
**Circuito Vivo arte.mov**, Paço das Artes - São Paulo, BR (06/2012)

## OTHER ACTIVITIES

### **Silo – Art and Rural Latitude** (2016 - 2020)

Founding associate member of this Civil Society Organisation of Public Interest dedicated to fostering and publicising cultural projects in rural areas, with the aim of bringing about transdisciplinary exchange between art, science and technology.

### **Interactivos?’** (2012, 2013, 2016, 2018)

Advisor/tutor for the two-week residency and community program that takes place in the rural Mauá region of Rio de Janeiro, Brazil. I helped different groups define the technology and implement their projects using a very limited set of materials.

### **Crash** (2016)

Advisor/mentor for this week-long immersive residency designed to foster stronger community practices amongst emerging artists in the Northwest region of the UK.

### **Hope Induction** (2016)

Instructor for a crash course about the potential artistic and expressive uses of digital technologies. This 4 hour class was developed in collaboration with Hope University in Liverpool.

**HackNights (2015)**

Instructor for 3 different series of classes about electronics, programming and web programming. Delivered as part of a 9-month residency at FACT, each 3-month session reflected some aspect of the current exhibition, and topics explored ranged from DIY electronics and video-games to APIs.

**Programação Chata Para Pessoas Descoladas (2012)**

Taught a 40-hour programming course that was designed to introduce artists and architects to the basic concepts of programming, and show how these can be used in expressive ways.

**Hacklab.es (2011)**

Instructor for a 3-month long class designed to teach artists, designers, architects and technology enthusiasts basic concepts of electronics and programming.