



# MARCELO BASTOS

## COMPUTATIONAL DESIGNER

Rhinoceros | Grasshopper | Revit | Autocad | Office | Adobe Suite | Metashape  
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## EXPERIENCE

**ICAR's Project - Founder and Director** 2017 - Current  
Computational Design Applied to Heritage Salvador, Brazil

- Used Grasshopper to translate centuries-old traditional boat design methods to computational designs
- Reduced time of geometry's register, from days to hours, using computational methods as photogrammetry and parametric design
- Published "*Saveiros, a rescue of design and construction techniques through parametric tools*" in International Shipbuilding Congress, Rio de Janeiro - Brazil, 2018
- Attracted TAMU<sup>[A]</sup> specialists to join the project due the results, 2019
- Winner of the Jaime Sodré of Cultural Heritage Award, 2020
- Hired as specialist to register a cultural craft as official heritage, 2022
- Invited to lecture in several foundations, seminars and institutions around Brazil
- Courses and certifications applied: Drone specialist - RPAS; Digital Technologies in Architectural Heritage Documentation<sup>[1]</sup>; Parametric Design: Conception, Optimization and Development<sup>[1]</sup>

**SEES Engenharia- Architect** 2018 - 2023  
Engineering office Salvador, Brazil

- Managed team of more than 20 professionals in civil construction field in a 3.000 m<sup>2</sup> building restoration
- Using Grasshopper and Rhinoceros to design an asymmetrical roof structure for a 600 m<sup>2</sup> space
- Used Grasshopper and Rhinoceros to design a parametric stair
- Used Grasshopper and Rhinoceros solve unusual structures problems
- Courses and certifications applied: Computer Programming for Shape Generation; Advanced Computer Applications in Architecture<sup>[2]</sup>

## MISCELLANEOUS

Several experiences United States, Italy and Brazil

- Published "*City, Architecture and Digital Technologies: clippings in a story - 30 years of LCAD*". A collection of articles published by LCAD<sup>[3]</sup> researchers, in 30 years of experience, and the future perspectives of digital technologies, 2023
- Winner of a national competition using parametric wall for acoustical purposes, 2022
- Published "Generative hollow panel Algorithm" article in Uid Milano, Milan - Italy, 2018
- Monitor in disciplines of technology applied to architecture at University, 2016
- Coordinated parametric panels project using Grasshopper at Borden Partnership to be fabricated at USC<sup>[B]</sup>, 2015
- Collaborated with the book "*New Essentialism, Material Architecture*", Los Angeles - United States, 2015
- Dean's List member at Kent State University, 2015
- Member of the state's swimming team at JUBS, National University Olympics Games, 2012
- Experience as intern in distinct fields as: architecture, design, urban planning, engineering, construction, fabrication and teaching
- Courses and certifications applied: 3D Composition<sup>[2]</sup>; Materials and Processes of Making<sup>[2]</sup>

## ABOUT ME

I am excited to apply for a Computational Designer position due to my singular trajectory. I worked as author, consultant and teacher in several projects using Grasshopper. Applying that, I was awarded and recognized by several institutions, in Brazil and United States, always using it to optimize processes, reduce costs and improve performance.

Computational Design was probably one of the most important aspects to ensure my success. My proficiency in Grasshopper was always related to purpose solutions to real problems, that is why I have been recognized at TAMU<sup>[A]</sup>, USC<sup>[B]</sup>, KENT<sup>[C]</sup> and others.

I already used parametric design in several fields like art, architecture, engineer, acoustics and even archeology, and I believe my diverse experience position me well for this role. I see computational design as a powerful tool to solve problems and make the world a better place to live, and I would like to keep doing that as part of your team.

## EDUCATION

**SPECIALIZATION in Yacht Design**  
BRANA<sup>[E]</sup> | Rio de Janeiro, Brazil 2020

**BACHELOR in Architecture and Urbanism**  
UFBA<sup>[D]</sup> | Salvador, Brazil 2018  
SCHOLARSHIP in extension program - KSU<sup>[C]</sup> 2015  
VISITING student during internship - USC<sup>[B]</sup> 2015

**BACHELOR in Science and Technology**  
UFBA<sup>[D]</sup> | Salvador, Brazil 2012

## LEADERSHIP

**COMMITTEE Member** 2018  
Nautical committee in Brazilian Society of Naval Engineering

**REPRESENTATIVE Student** 2016  
Architecture Faculty, pointed by the academic directory

**GENERAL Director** 2013  
Directory of Architecture Students at Federal University of Bahia

A. TAMU - Texas A&M University

B. USC - University of Southern California

C. KENT - Kent State University

D. UFBA - Federal University of Bahia

E. BRANA - Brazil Naval Architecture

F. NADL - The Nautical Archaeology Digital Library

1. Invited graduate student at Federal University of Bahia

2. Invited graduate student at Kent State University

3. Laboratory of Computer Graphics Applied to Architecture