

17 February 1979, Brazilian citizen

**Address:**

143B boulevard Baille, Apt F501  
13005 Marseille  
France

**Contact:**

phone: +33 (0)6 75 57 39 96  
email: gmachado.eng@gmail.com  
webpage: www.gmachado.com

**PRESENT POSITION**

Since Sep. 2015 **Maître de conférences (Associate Professor)**

*Laboratoire de Mécanique et d'Acoustique - CNRS - UPR 7051*  
*Aix-Marseille Université*  
Marseille – France

**INTERESTS**

Computational and experimental material mechanics: Architected materials; Bioresorbable polymers and bioelastomers; Rubber-like materials; Shape memory alloys (NiTi); Cellular/foams materials.

**EDUCATION**

2007 – 2011 **Ph.D. in Mechanical Engineering**

*Université de Grenoble*  
Grenoble – France

Title: *A contribution to the study of induced anisotropy by Mullins effect in silicone rubber*  
Supervisors: Prof. Denis Favier, Ass. Prof. Gregory Chagnon

2004 – 2006 **Master's Degree in Mechanical Engineering**

*Univ. Federal de Santa Catarina - UFSC*  
Florianopolis, Brazil

Title: *Element-free Galerkin Method Applied on Polymeric Foams*  
Supervisors: Prof. Marcelo Krajnc Alves, Prof. Rodrigo Rossi

1999 – 2003 **Mechanical Engineer**

*Universidade Federal de Itajubá – UNIFEI*  
Itajubá – Brazil

1994 – 1997 **Automation and Process Control Technician**

*Everardo Passos Technical School*  
São José dos Campos – Brazil

## WORK EXPERIENCE

Nov. 2013 – Aug. 2015 **Postdoctoral fellow**

*Techniques for biomedical engineering and complexity management – informatics, mathematics and applications (TIMC-IMAG Laboratory)*

Team: Biomedical and Mechanical engineering of Materials (BioMMat)  
Grenoble – France

Nov. 2011 – Oct. 2013 **Postdoctoral fellow**

*Laboratoire de Mécanique et Génie Civil de Montpellier (LMGC)*

Team: Thermomécanique des Matériaux (ThM2)  
Montpellier – France

Nov. 2011 – Aug. 2012 **Part-time lecturer (Vacataire)**

*Univ. Montpellier 2 (Mechanical Department) and Polytech Montpellier*  
Montpellier – France

Oct. 2010 – Aug. 2011 **Temporary Researching and Teaching position (ATER)**

*Univ. Joseph Fourier - UFR PhITEM (Physique, Ingénierie, Terre, Environnement, Mécanique)* Grenoble – France

Oct. 2007 – Sep. 2010 **Teaching assistant (Moniteur)**

*Univ. Joseph Fourier (Department of Mechanical and Civil Engineering)*  
Grenoble – France

Apr. 2007 – Oct. 2007 **Pre-doctoral stage**

*Laboratoire Sols Solides Structures et Risques – 3SR*  
Grenoble – France

Experimental mechanical characterization of rubber-like materials.

2003 – 2004 **Mechanical Engineer**

*Empresa Brasileira de Aeronáutica – EMBRAER*

São José dos Campos – Brazil

Knowledge Based Engineering Department - working with cycle reduction and customization of geometric and structural finite element analysis of commercial aircraft wings.

1998–1999 **Robot and Process Control Technician**

*Simoldes Plásticos Brasil*

Caçapava – Brazil

Product and Process Design Team – process design for thermoplastic injection molding applications (mold injection machines and robots). Also worked closely with the mold design, test engineering and manufacturing teams.

## **SUMMARY OF QUALIFICATIONS**

- Energetic, self-motivated, team player.
- Interact productively with people from diverse backgrounds.
- Accurate, professional nature, require minimal supervision.
- Able to work under pressure, handle multiple demands and set priorities.
- Excellent public speaking and communication skills.

## **TECHNICAL SKILLS**

- Strong background with respect to Finite Element Method, Meshless Methods (EFG) and non-linear computational mechanics.
- Advanced experience with commercial FEA codes: ABAQUS (including UMAT), MSC.Nastran/Patran (including PCL) and ANSYS.
- Extensive hands-on experience in experimental mechanics: testing machines, measurement systems, instrumentation and testing development.
- Experience with two and three-dimensional digital image correlation (2D and 3D-DIC).
- Programming languages: C++, FORTRAN, Python, Matlab/Simulink, LabView.
- Experience with computer-aided design and drafting, proficient in the use of Catia >V5.
- Familiarity with Unix/Linux and Windows environments.

## **OTHER SKILLS**

English, French and Portuguese (read, write and speak).  
Spanish (read and speak).