

# GUILHERME FERREIRA GOMES

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## CONTACT INFORMATION

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Brazil

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## SUMMARY

Mechanical Engineer and Master of Science with double degree in Mechanical and Industrial Engineering in Brazil and France, specialized and has experience in various areas of engineering.

## EDUCATION

### **Federal Univeristy of Itajubá, Itajubá, Brazil**

Ph.D. in Mechanical Engineering.

Project area, focusing on Structural Health Monitoring, mechanical vibration, optimization methods and composite materials.

### **Federal Univeristy of Itajubá, Itajubá, Brazil**

Master of Science in Mechanical Engineering.

Project area, focusing on mechanical vibration, optimization methods and composite materials.

### **École Nationale d'Ingénieurs de Metz, Metz, France**

Double degree program (Master's) in mechanical/industrial engineering.  
Specialization in Industrial Maintenance.

### **Federal Univeristy of Itajubá, Itajubá, Brazil**

Mechanical Engineering.

## PROFESSIONAL EXPERIENCE

### **Federal University of Itajubá, Brazil**

*Assistant*

**July, 2015 - Present**

- Teaching internship in the mechanical engineering course.

### **ALTAI Engineering, Brazil**

*Co-Founder*

**August, 2015 - September, 2016**

- Company focused on analysis and computer simulations in various areas of Mechanical Engineering, offering customized solutions in structural analysis by finite element method, computational fluid dynamics, product development and consulting

### **ArcelorMittal Global R&D, France**

*Trainee*

**January, 2014 - July, 2014**

- Training in mechanical engineering in Europe's biggest Research & Development center.
- Final year thesis carried out jointly to stage: Dynamic behavior investigation of spot welding machines and its influence on weld current range by modal analysis
- Competes for the prize of 'French Society of Metallurgy Materials' as the best stage of the east region of France.

### **Federal Univerisy of Itajubá, Brazil**

*Formula SAE Project*

*Teacher Assistant*

**July, 2011 - July, 2012**

**July, 2011 - March, 2012**

- LANGUAGES
- Portuguese: native.
  - French: fluency.
  - English: Advanced (TOEIC 815pts and TOEFL).
  - Spanish: basic.
- COMPUTER SKILLS
- Languages: C, HTML, PHP, Fortran.
  - Engineering: ANSYS, Catia v5, Abaqus, Matlab, Minitab, AutoCAD, SolidWorks, MSC Adams and others.
- SCIENTIFIC JOURNAL REVIEWER
- Global Journal of Science Frontier Research **September, 2016 - Present**
  - International Journal of Mathematics Trends and Technology **September, 2016 - Present**
  - International Journal of Modeling and Optimization **September, 2016 - Present**
  - International Journal of Engineering Trends and Applications **September, 2016 - Present**
  - SSRG International Journal of Mechanical Engineering **September, 2016 - Present**
  - Journal of Science and Technology **September, 2016 - Present**
- SCIENTIFIC PUBLICATIONS
- Damage Detection in Composite Materials Via Optimization Techniques Based on Dynamic Parameters Changes. International Journal of Emerging Technology and Advanced Engineering, v. 6, p. 157-166, 2016.
  - Dynamic behavior investigation of spot welding machines and its influence on weld current range by modal analysis. Journal of the Brazilian Society of Mechanical Sciences and Engineering, v. 39, p. 1-9, 2016.
  - Crack Detection in Composite Laminated Plates Using Optimization Techniques Based in Changes in Natural Frequencies. International Journal of Engineering Applied Sciences and Technology, v. 1, p. 200-205, 2016
  - Parâmetros e Localização Ótima de Neutralizadores Dinâmicos de Vibrações em Placas Usando Algoritmos Genéticos. In: IX Congresso Nacional de Engenharia Mecânica - CONEM 2016, 2016, Fortaleza. IX Congresso Nacional de Engenharia Mecânica - CONEM 2016, 2016
  - Detecção de danos em material compósito laminado considerando otimização multiobjetivo e algoritmos genéticos. In: IX Congresso Nacional de Engenharia Mecânica - CONEM 2016, 2016, Fortaleza. IX Congresso Nacional de Engenharia Mecânica - CONEM 2016, 2016
  - Estudo comparativo de técnicas de otimização aplicadas em problemas de detecção de danos estruturais. In: IX Congresso Nacional de Engenharia Mecânica - CONEM 2016, 2016, Fortaleza. IX Congresso Nacional de Engenharia Mecânica - CONEM 2016, 2016
  - Otimização Estrutural de elementos em compósitos usando redes neurais. In: XXXVII Iberian Latin American Congress on Computational Methods in Engineering - CILAMCE 2016, Brasília.
  - Dynamic Experimental Study of Spot Welders and Its Influence on Weld Quality by Modal Analysis Technique. In: 8th International Seminar on Advances in Resistance Welding, 2014, Baveno. 8th International Seminar on Advances in Resistance Welding, 2014. v.1.
  - Caracterização Microestrutural de um aço com Diferentes Microestruturas Bifásicas a Partir do Aço LNE 380 Via Simulação Computacional e Metalografias Qualitativa e Quantitativa.. In: - VI Conferência Brasileira sobre Temas de Tratamento Térmico, 2012, Atibaia. VI Conferência Brasileira sobre Temas de Tratamentos Térmicos, 2012. v. 1.
  - Detecção de Furos em Placas de Material Compósito Laminado Via Algoritmos Genéticos. Revista de la Facultad de Ingeniería de la U.C.V., 2016.
  - Damage Detection in a Composite Plate Using Finite Element Method and Optimization Algorithm. Australian Journal of Basic and Applied Sciences, 2016.

PARTICIPATION IN  
EVENTS

- IX National Congress of Mechanical Engineering - CONEM 2016 (Fortaleza, Brazil).
- Acelera StartUp (Varginha, Brazil), 2015.
- CBGDP - Brazilian Congress of Management Innovation and Product Development, 2015.
- eXchange Sebrae (Belo Horizonte, Brazil), 2015.
- EUROMOLD — World Fair for Mold and Patternmaking, Tooling, Design, Additive Manufacturing and Product Development (Germany) 2013.
- MIDEST — The global show for all industrial subcontracting know-how (Paris, France) 2013.
- XXII SEGUS - Management and Use of Water, 2009.