School of Engineering of São Carlos, University of São Paulo, Brazil

Application for internship at EADS

European Aeronautic Defense and Space Company (EADS) is the largest center of aeronautical technology in the world. The existence of a single industry that can design, build and maintain all kinds of aircrafts, from unmanned aerial vehicle to executive helicopters, is admirable. The opportunity of an internship at this institution encourages me to learn as much as possible to develop this Company and to make my contribution for the aeronautic future of my country. I believe that my knowledge, especially in aerodynamics where I focused my scientific production, and my experience in design, participant of five Aero design competitions, renders me capable to take the step beyond with EADS. Aeronautics brings people together, this is how we can make the world better, by taking care of the Earth and reducing distances and differences.

I am glad for the opportunity to show what I am studying and I hope this cooperation comes true.

Lucas Florêncio Queiróz de Oliveira
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Sumary

Curriculum Vitae

Lucas Florêncio Queiróz de Oliveira

Brazilian
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Single; born in Recife, PE, Brazil, on 26/04/1991

- ## Professional Goal

  - Internship in Aeronautical Engineering at EADS.
  - Preferential area of interest: Fluid Dynamics and Aerodynamics.

Abstract

a) Aeronautical Engineering student, University of São Paulo (USP).
b) Currently Member of EESC-USP AeroDesign Team, 2009-2012. Participant in the design of 5 airplanes.
c) Scientific research: work dedicated to the study of propeller and experimental aerodynamic, fomented by FAPESP. Published paper at AIAA (American Institute of Aeronautics and Astronautics) congress. Atlanta, Georgia, USA, 2012.
d) Graduation emphasis: Emphasis on Computational Fluid Mechanics in the Institute of Mathematics Science and Computation (ICMC).
e) English courses in Canada.
f) Aircraft Privet Pilot Theoretical Course. Air Club of São Paulo.

- ## Academic Background

  - 2009–2013: Graduation in Aeronautical Engineering - São Carlos Engineering School – University of São Paulo.

- ## Academic Activities

  - 2009-2012: Member of EESC-USP AeroDesign Team. Participant in the design of 5 airplanes, 3 of them for the *SAE Brazil AeroDesign Competition* and 2 of them for the *SAE International AeroDesign East Competition*; 4 of these airplanes were in the first three places of the competition whose participated.

- 2011-2012: Scientific Initiation Project in Aerodynamics, fomented by the São Paulo Research Foundation (FAPESP). Project title: "Application of the Vortex Theory for Theoretical and Experimental Verification of the Propeller 13x4".
- 2011-2012: Emphasis on Computational Fluid Mechanics in the Institute of Mathematics Science and Computation (ICMC). The emphasis aims to prepare students to use and develop computational fluid mechanics software adding four subjects for the curriculum: Numerical Methods in Differential Equations, Numerical Methods for Mesh Generation, Computational Fluid Mechanics I and Computational Fluid Mechanics II. Total time load: 420 hours.

• Languages

- Portuguese- Native Language
- English- Advanced Level (3 months of experience studying at Hansa Language Center, Toronto, Canada, from 12/2011 to 02/2012).
- French- Basic Level (6 months in particular classes).
- Interested in learning more languages.

• Scientific Production

- "Computational Tool to Describe the Aerodynamic Characteristics of High Rotation Propellers": Accepted paper for *48th AIAA/ASME/SAE/ASEE Joint Propulsion Conference & Exhibit* , that happens on July 2012, Atlanta, Georgia, USA. Full paper for presentation.

• Events

- 2012: Oral presentation on *48th AIAA/ASME/SAE/ASEE Joint Propulsion Conference & Exhibit* , July, Atlanta, Georgia, USA.
- 2011: *XIII SAE Brazil AeroDesign Competition*. São José dos Campos, Brazil. With the airplane EESC-USP Charlie 2011, honor mention for Most Payload and Better Project, 2nd place.
- 2011: *SAE International AeroDesign East Competition*, Marietta, Georgia, USA. With the airplane EESC-USP Regular 2011, 3rd place.
- 2010: *XII SAE Brazil AeroDesign Competition*. São José dos Campos, Brazil. With the airplane EESC-USP Charlie 2010, honor mention for Most Payload, Better Oral Presentation, Better Accuracy and Better Project, 2nd place.

- 2010: *SAE International AeroDesign East Competition*, Fort Worth, Texas, USA. With the airplane EESC-USP Regular 2010, 2nd most payload, 3rd place.
- 2009: *XI SAE Brazil AeroDesign Competition*. São José dos Campos, Brazil. With the airplane EESC-USP Bravo 2009, 7th place.
- 2009-2011: VI, VII & VII editions of the "*Aeronautic Engineering Week*" School of Engineering of São Carlos, University of São Paulo- São Carlos Brazil.

• Main Qualifications

- 2009: Aircraft Privet Pilot Theoretical Course. Air Club of São Paulo, Civil Aviation School, São Paulo, Brazil. Total time load: 293 hours.
- 2008: Advanced School of Astronomy and Astronautics, Technological Institute of Aeronautics, São José dos Campos, Brazil. Total time load: 1 week.

- Experience with conventional and non-conventional wind tunnel techniques and instruments.
- Large knowledge of Microsoft office Excel, Word and Power Point.
- Large knowledge and experience on Xfoil and MSES (two-dimensional aerodynamic analyses software) and good knowledge on ANSYS FLUENT e CFX (Computational Fluid Dynamics software).
- Good knowledge and experience on CATIA V5, Solidworks and AutoCAD (Computer-Aided Design software).
- Good knowledge and experience on MatLab (engineering mathematical and technical computing).

• Voluntary Work

- Voluntary work at NGO: "Um Teto para o meu País" (a Shelter for my Country). This NGO constructs emergency homes in needy communities of São Paulo.