

Bernardo Bahia Monteiro

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September 25, 2020

Education

University of Michigan

Ph.D. Candidate, Aerospace Engineering
GPA: 4.00

Ann Arbor, MI
September 2019–May 2024 (expected)

Universidade Federal de Minas Gerais

Bachelor of Science, Aerospace Engineering
GPA: 4.9/5.0
Admitted in first place, January 2014
First in class

Belo Horizonte, Brazil
February 2014–June 2019

University of Strathclyde

One semester exchange in Aero-mechanical Engineering

First class result in all disciplines, some at master's level: Control Systems Design, Introduction to Engineering Optimization, Spaceflight Systems, Aerospace Propulsion, Engineering Composites, Engineering Analysis 3 (Introduction to CFD).
Development of a dynamical inversion control system for a drone (coursework)

Glasgow, UK
January–July, 2017

Experience

Graduate Student Research Assistant

Active Aeroelasticity and Structures Research Laboratory (A²SRL)
Research interest: Control related metrics for MDO, flexible aircraft

University of Michigan
September 2019–present

Intern at Embraer

Flight Operations Engineering
Preliminary Design

São José dos Campos, Brazil
January, 2018–January, 2019
February, 2019– June, 2019

Voluntary Research Assistant at UFMG

Worked with Prof. Ricardo Luiz Utsch de Freitas Pinto
Numerical Analysis

Belo Horizonte, Brazil
2015–2018

Submitted a paper to the SIAM Journal on Numerical Analysis

Title: *End-point corrections for the midpoint rule*; available at [arXiv:1812.00243](https://arxiv.org/abs/1812.00243)

Voluntary Summer Research Assistant at Strathclyde

Project Future UK Small Payload Launcher

Feasibility study of a horizontal rocket launcher with a reusable first stage
Multi-disciplinary optimization
Optimal Control

Glasgow, UK

Model Rocketry Team, UFMG

Designed and manufactured two model rockets for a nationwide competition
Coordinated a team of 8 people responsible for the project of one of these rockets
Responsible for rocket stability

Belo Horizonte, Brazil
2014–2016

Short term courses

Embraer's
Flight Operations Engineering Course
Workload: 30 hours

São José dos Campos, Brazil
April 9–12, 2018

Embraer's
Basic and Advanced Fortran
Workload: 40 hours

São José dos Campos, Brazil
April 2–6, 2018

Brazilian — German Summer School on
Numerical Simulations with the Finite Element Method
Mathematical Analysis and Computational Practice
Lecturers: Prof. Dr. Thomas Richter (Erlangen-Nürnberg University)
Prof. Dr. Malte Braack (Kiel University)
Workload: 30 theoretical and 25 practical classes (of 45min each)

UFRGS, Porto Alegre, Brazil
February 15–26, 2016

Awards and achievements

- 2nd overall place on ENEM 2013 (National High School Exam), more than 7 million students applied
- Gold Medal on the XV Brazilian Olympiad of Astronomy and Astronautics (October 2012)
- Honorable Mention on the state's Olympiad of Mathematics (MG, 2007)

Computer skills

- MATLAB/SIMULINK
- C/C++, Python, Java, Fortran
- Linux/Unix
- L^AT_EX

Linguistic skills

- Proficient English (Level C2 — TOEFL: 117 / CAE Grade A)
- Native Portuguese

Hobbies and interests

Running a Linux server, playing tennis and basketball, mountain biking on the weekends, working on the lathe.