Joao Dantas

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EDUCATION

CARNEGIE MELLON UNIVERSITY

RESEARCH ASSOCIATE AT THE ROBOTICS INSTITUTE Nov 2021 - Present | Pittsburgh, PA, United States

AERONAUTICS INSTITUTE OF TECHNOLOGY

D.Sc. IN ELECTRONIC AND COMPUTER ENGINEERING Jan 2019 - Present | Sao Jose do Campos, SP, Brazil Cum. GPA: 9.5 / 10.0

AERONAUTICS INSTITUTE OF TECHNOLOGY

M.Sc. IN ELECTRONIC AND COMPUTER ENGINEERING Aug 2016 - Dec 2018 | Sao Jose do Campos, SP, Brazil Cum. GPA: 8.5 / 10.0

STONY BROOK UNIVERSITY

MECHANICAL ENGINEERING EXCHANGE PROGRAM Jul 2014 - Jul 2015 | Stony Brook, NY, United States Cum. GPA: 3.93 / 4.00

AERONAUTICS INSTITUTE OF TECHNOLOGY

B.Sc. in Mechanical-Aeronautical Engineering Jan 2011 - Dec 2015 | Sao Jose do Campos, SP, Brazil Honorable Mention in the Department of Humanities Cum. GPA: 8.7 / 10.0

BRAZILIAN AIR FORCE ACADEMY

AIR FORCE PILOT COURSE **B.Sc. in Public Administration** Jan 2008 - Jul 2009 | Pirassununga, SP, Brazil

SKILLS

TECHNICAL SKILLS

PROGRAMMING LANGUAGES Python • R • SQL • MATLAB

DEEP LEARNING FRAMEWORK

TensorFlow • Keras • PyTorch

PYTHON TOOLKITS

NumPy • Pandas • Matplotlib • Scikit-Learn • SciPy

SOFT SKILLS

Bilingual Communicator (Portuguese, English)

ACHIEVEMENTS

- 3rd/8 5th KDD BR Competition, 2021.
- Military Bronze Medal Brazilian Air Force, 2021
- 6th/39 3rd KDD BR Competition, 2019.
- 4th/14 Data Science Challenge at EEF, 2019.
- Military Merit Award Brazilian Air Force, 2014.
- 1st/120 Brazilian Air Force Reserve Officer Training Corps (CPORAER-SJ), 2011.
- Bronze Medal 10th Brazilian Olympiad of Astronomy and Astronautics, 2007.

EXPERIENCE

BRAZILIAN AIR FORCE | RESEARCH SCIENTIST

Jan 2013 - Present | Sao Jose do Campos, SP, Brazil

- 1st Lieutenant Engineer Officer
- Research on military Modeling & Simulation, Machine Learning and Data Science for developing decision support systems.

COC EDUCATIONAL SYSTEM | MATHEMATICS TEACHER & SCIENTIFIC OLYMPIADS COORDINATOR

Feb 2017 - Jul 2021 | Sao Jose do Campos, SP, Brazil

- Responsible for the preparatory class for Scientific Olympiads.
- 158 medals and honorable mentions in 46 different national and international competitions.

EMERGE BRASIL | Co-founder & Head of Communications

Oct 2016 - Dec 2017 | Sao Jose do Campos, SP, Brazil

- Emerge Brasil was born to foster and strengthen market-oriented technological innovation in Brazil.
- More than 300 technologies are mapped, with 60 technologies already working in partnership with the Brazilian Industry.

RESEARCH

THE AIRLAB | RESEARCHER

Nov 2021 - Present | Pittsburgh, PA, United States Working with Prof. Dr. Sebastian Scherer to develop an artificial intelligence system to keep autonomous unmanned aircraft, in conjunction with manned traffic, safely separated and behave as expected when entering and leaving the traffic/break/formation pattern.

INSTITUTE FOR ADVANCED STUDIES | RESEARCHER

Jan 2016 - Present | Sao Jose dos Campos, SP. Brazil Development of the Aerospace Simulation Environment, a custom-made object-oriented simulation framework that enables the modeling and simulation of military scenarios to support the development of tactics and procedures in the aerospace context for the Brazilian Air Force.

NATIONAL COUNCIL FOR SCIENTIFIC AND TECHNOLOGICAL DEVELOPMENT (CNPO) | FELLOW

Aug 2011 - Jul 2015 | Sao Jose dos Campos, SP, Brazil Science Without Borders Scholarship Program (2014 – 2015) Scientific Initiation Scholarship Program (2011 – 2013)

EXTRACURRICULAR EXPERIENCE

FOUR INSTITUTE | FELLOW

May 2016 - Present | Sao Paulo, SP, Brazil Selected between 2.013 candidates to the Prolider program that seeks to discuss the Brazilian scenario and, from these discussions, propose solutions or projects that contribute to the development of Brazil. Received the **Distinguished Fellowship Award** in 2020 and 2021 for making significant contributions to the Four Institute Community.

INT. YOUTH MATH CHALLENGE (IYMC) | AMBASSADOR

• Academic Merit Award - Brazilian Air Force, 2009. Jul 2019 - Present | Sao Jose dos Campos, SP, Brazil

Awarded Ambassador of IYMC in Brazil, an international math competition with more than 6500 students in more than 98 countries worldwide.