Eduardo Moura Cirilo Rocha

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https://mcreduardo.github.io/projects/

EXPERIENCE

Robotics Software Engineer

RFA Engineering - under contract to John Deere ISG

₩ Jan 2020 - present

Berkeley, CA

♀ Berkeley, CA

Designed data pipelines for stereo image acquisition and logging. Deployed Deep Learning models to embedded hardware. Developed applications in a continuous integration environment. (C++, C, Python, Jenkins, Artifactory, Docker)

Research Assistant

University of Wisconsin-Madison

🛗 Jan 2018 - Dec 2019

Madison, WI

Designed a new method to assess corn silage quality via image analysis and Deep Learning. Designed custom camera systems for data acquisition. (Python, Tensorflow, GCP, R)

Product Engineering Intern

John Deere Intelligent Solutions Group Automation Delivery Organization

May 2019 - Aug 2019

9 Des Moines, IA

Used Computer Vision and Deep Learning techniques for Image Classification and Semantic Segmentation (Python, C++, OpenCV, Tensorflow, Sklearn). Implemented robotic arm control and object detection using stereo cameras (Python, C, OpenCV, Classical Controls).

Mechatronics Laboratory Intern

University of Wisconsin-Madison

May 2016 - Aug 2016

Madison, WI

Designed and fabricated an injection pump for use in 4D Neuroangiography (PLC, CNC machining, 3D scanning/printing, Classical Controls).

Lab Assistant

Laboratory of Aerial Robotics, Universidade de Brasilia

Mar 2014 - July 2017

Prasília, Brazil

Designed and assembled autonomous unmanned aerial vehicles. Implemented algorithms for cooperative control of multiple aircraft (System design, Matlab, Simulink).

PROJECTS

Research Project: SilageSnap Application [App link]

Developed a mobile application capable to assess corn kernel particle size distribution in water separated corn silage using image analysis (C++, OpenCV, Swift).

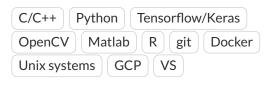
Social Extension Project/Competition Team: UnBeatables

Developed behavioral algorithms for autonomous humanoid robots control in robotic soccer competitions. Trained Deep Learning models for object detection (C++, TensorFlow, OpenCV).

Competition Team: Draco Volans Aerodesign

Developed algorithms for structural optimization and simulation of aircraft. (C, Matlab, Ansys).

SKILLS



Portuguese, English Spanish, German Polish



EDUCATION

M.S. Biological Systems Engineering University of Wisconsin-Madison

🛗 Jan 2018 - Dec 2019

- Focused on agricultural automation, Machine Learning, and Modern Controls.
- [Thesis and plublications]

B.S. Mechatronics Engineering

Universidade de Brasília, Brazil University of Wisconsin-Madison

Marg 2012 - Dec 2017

- Graduated first in a class of 40.
- Brazil Scientific Mobility Program fully-funded scholarship recipient.
- VISP Academic Excellence Award recipient, Fall 2015, University of Wisconsin-Madison.

FURTHER EDUCATION

• deeplearning.ai (Coursera) ## 2019 TensorFlow in Practice Specialization

♀ LinkedIn Learning

2020

- C++: Advanced Topics
- Test-Driven Development in C++
- DevOps Foundations: Continuous Delivery /Continuous Integration

EXTRACURRICULAR ACTIVITIES

- Data Structures and Digital Circuits teaching assistant, Universidade de Brasilia (Mar 2014 – July 2015)
- Speaker of International Reach Cross-Cultural Speakers Program, UW-Madison (Sep 2015 – Aug 2016)
- Portuguese tutor in the program Greater University Tutoring Service, UW-Madison (Jan 2016

 Aug 2016)