EDUARDO ROCHA

@ mouracirilor@wisc.edu   ☎ 608-207-8908   ⚲ California, US

in https://www.linkedin.com/in/eduardo-rocha-a26029107/   ⌂ https://mcreduardo.github.io/projects/

EXPERIENCE

Product Engineering Intern

**John Deere Intelligent Solutions Group
Automation Delivery Organization**

📅 May 2019 – Present   ⚲ Iowa, US

Used Computer Vision and Deep Learning techniques for Image Classification and Semantic Segmentation (Python, C++, OpenCV, Tensorflow, Sklearn). Implemented control systems for electric linear actuators (system linearization, classical controls, electrical system design).

Research Assistant

University of Wisconsin-Madison

📅 Jan 2018 – Present   ⚲ Wisconsin, US

Designed a new method to assess corn kernel particle size distribution in chopped and processed corn silage and earlage via image analysis and Deep Learning techniques (Matlab DL TB, Python, Tensorflow, R).

Mechatronics Laboratory Intern

University of Wisconsin-Madison

📅 May 2016 – Aug 2016   ⚲ Wisconsin, US

Designed and fabricated an injection pump for use in 4D Neuroangiography in the Wisconsin Institute for Medical Research (CNC machining, 3D scanning and printing, PLC, classical controls).

Lab Assistant

Laboratory of Aerial Robotics, Universidade de Brasilia

📅 Mar 2014 – July 2017   ⚲ Brasília, Brazil

Designed and assembled autonomous unmanned aerial vehicles. Implemented algorithms for cooperative control of multiple aircraft (Matlab, Simulink). Projected and implemented an algorithm to calibrate IMUs using a gyroscope.

SKILLS

C++, Python, Tensorflow, Keras, Matlab   ●●●●●
R, git, docker, Unix, OpenCV   ●●●●○

Portuguese, English   ●●●●●
Spanish, German   ●●●○○
Polish   ●●○○○

EDUCATION

MS Biological Systems Engineering

University of Wisconsin-Madison

📅 Jan 2018 – **Dec 2019**   GPA: 3.85/4

- Focus on Machine Learning and Modern Controls.
- Thesis: Assessing Corn Kernel Particle Size Distribution in Chopped and Processed Corn Silage and Earlage via Image Analysis.

BS Mechatronics Engineering

**Universidade de Brasília, Brazil
University of Wisconsin-Madison**

📅 Aug 2012 – Dec 2017   GPA: 4.3/5

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

FURTHER EDUCATION

TensorFlow in Practice Specialization

deeplearning.ai   ⚲ Coursera

PROJECTS

Research Project: SilageSnap Application (link)

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

Extension Project: UnBeatables

Developed behavioral algorithms for control of autonomous humanoid robots in robotic soccer competitions - Latin American and Brazilian Robotics Competition, and RoboCup (C++).

Competition team: Draco Volans

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

EXTRACURRICULAR

- 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)