EDUARDO ROCHA

@ mcirilorocha@gmail.com 608-207-8271 San Francisco, CA
https://www.linkedin.com/in/eduardo-rocha-a26029107/ https://mcreduardo.github.io/projects/

EXPERIENCE

Robotics Engineer

RFA Engineering – under contract to John Deere

Jan 2020 – present Iowa, US

Research Assistant

University of Wisconsin-Madison

Jan 2018 – Dec 2019 Wisconsin, US

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

Product Engineering Intern

John Deere Intelligent Solutions Group
Automation Delivery Organization

May 2019 – Aug 2019 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 (linearization, controls).

Mechatronics Laboratory Intern

University of Wisconsin-Madison

May 2016 – Aug 2016 Wisconsin, US

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

SKILLS

C++, Python, Tensorflow, Keras, Matlab
R, git, Docker, Unix, OpenCV, GCP

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

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)

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).