José Vinícius de Miranda Cardoso

Undergraduate Student
Federal University of Campina Grande, Brazil
Department of Electrical Engineering
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Education

Undergraduate in progress in Electrical Engineering — *2011 –*
Federal University of Campina Grande, Brazil
Advisor: Marcelo Sampaio de Alencar

Visiting Student – Electrical Engineering and Computer Science — *Fall 2014 – Spring 2015*
The Catholic University of America, USA
University of Maryland at College Park, USA
Brazil Scientific Mobility Program, Fully funded scholarship recipient
Advisors: Duilia F. de Mello and Jandro L. Abot

Technical Degree in Informatics — *2007 – 2010*
Federal Institute of Education, Science and Technology of Paraíba, Brazil
Advisor: Carlos Danilo Miranda Regis

Professional Experience

Scientific Software Engineering Intern — *Mar 2017 – Feb 2018*
NASA Ames Research Center, Silicon Valley, USA
Kepler/K2 Guest Observer Office
Mentor: Geert Barentsen

Software Developer at Google Summer of Code — *Summer 2016*
Google Summer of Code – The AstroPy Project
Mentors: Erik Tollerud, Hans Moritz Günther, and Brigitta Sipocz

Undergraduate Teaching Assistant — *Spring 2015*
Probability and Statistics for Electrical Engineering and Computer Science
Federal University of Campina Grande, Brazil

Undergraduate Research Assistant — *Fall 2015 – Fall 2016*
Institute for Advanced Studies in Communications, Brazil
Mentor: Marcelo Sampaio Alencar

Undergraduate Guest Researcher — *Summer 2015*
National Institute of Standards and Technology, USA
Center for Nanoscale Science and Technology
Nanofabrication Research Group
Mentor: Marcelo Ishihara Davanço

Undergraduate Research Assistant — *2011 – 2014*
Institute for Advanced Studies in Communications, Brazil
Mentor: Marcelo Sampaio Alencar

Projects

NASA Transiting Exoplanet Survey Satellite (TESS) Proposal
Performing The Most Comprehensive Exoplanet Survey Of The Southern Sky With TESS Full Frame Images
Principal Investigator: Benjamin Montet   *2018*

Google Summer of Code-The AstroPy Project
Point spread function photometry for fitting overlapping stars simultaneously   *Summer 2016*

National Institute of Science and Technology, USA
Parameter estimation for photoactivated localization microscopy   *Summer 2015*

Institute of Advanced Studies in Communications, Brazil
Statistical characterization of free space optical channels   *2016 – 2016*
Signal detection in generalized fading channels   *2015 – 2016*
Multiplatform software for objective stereoscopic image and video quality assessment   *2013 – 2014*
Stereoscopic video quality estimation using objective algorithms   *2012 – 2013*
Development of a novel objective algorithm for video quality assessment   *2011 – 2012*

Publications

Please, refer to `https://mirca.github.io/publications`

Competencies

Software: Python (numpy, scipy, pandas, scikit-learn), git/GitHub, C/C++, Unix shell

Favourite courses: Stochastic Processes, Information Theory, Random Signal Theory, Estimation and Detection Theory

Languages: Native Portuguese, Fluent English

Awards

1. Selected to the Python in Astronomy Conference, Leiden, The Netherlands, 2017

2. Selected to the São Paulo School of Advanced Science on Nanophotonics, São Paulo, Brazil, 2016

3. Travel Grant Recipient, IEEE Antennas and Propagation Symposium, Puerto Rico, 2016

4. Young Author Recognition Award, International Telecommunication Union, ITU Kaleidoscope 2015

5. Young Author Recognition Award, International Telecommunication Union, ITU Kaleidoscope 2014

6. The paper "SQUALES: A QT-based Application for Full-Reference Objective Stereoscopic Video Quality Measurement" was one of the six papers nominated for Best Paper Award at ITU Kaleidoscope 2014

Additional Information

– Member of the AstroPy software development community.

– Participated in the IEEEXtreme 24-Hours Programming Competition in 2013, 2014, 2015, and 2016.

– Student of the week on the IEEE Students Facebook webpage.

– Participated at the *PSF Photometry and Software Workshop*, Space Telescope Science Institute, Baltimore, 2017.

– Attended NASA Ames Machine Learning Workshop, 2017.