José Vinícius de Miranda Cardoso

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

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

Fall 2014 – Spring 2015 *Visiting Student – Electrical Engineering and Computer Science*
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

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

Professional Experience

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

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

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

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

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

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

Projects

The Astropy Project/ Google Summer of Code
May'16 – Aug'16 Point spread function photometry for fitting overlapping stars simultaneously

National Institute of Science and Technology, USA
May'15 – Aug'15 Parameter estimation for photoactivated localization microscopy

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

Publications

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 at the *PSF Photometry and Software Workshop*, Space Telescope Science Institute, Baltimore, 2017.
- Participated in the IEEEXtreme 24-Hours Programming Competition in 2013, 2014, 2015, and 2016.
- Student of the week on the IEEE Students Facebook webpage.
- Attended NASA Ames Machine Learning Workshop, 2017.