José (Zé) Vinícius de Miranda Cardoso

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http://mirca.github.io

1 Education

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: PhD Duilia F. de Mello and PhD Jandro L. Abot

2011 Undergraduate in progress in Electrical Engineering

Federal University of Campina Grande – UFCG, Brazil

Advisor: PhD Marcelo Sampaio de Alencar

2007 - 2010 Technical Degree in Informatics

Federal Institute of Education, Science and Technology of Paraíba – IFPB, Brazil

Advisor: MSc Carlos Danilo Miranda Regis

2 Professional Experience

2017 - Current Data Analysis Intern at Kepler/K2 Guest Observer Office

NASA Ames Research Center

Mentor: Geert Barentsen

Summer 2016 Software Developer at 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 Engineering and Computer Science Federal University of Campina Grande – UFCG, Brazil

 $\textbf{Fall 2015} - \textbf{2016} \ \textit{Undergraduate Research Assistant}$

Institute for Advanced Studies in Communications – Iecom, Brazil

Mentor: Marcelo Sampaio Alencar

Summer 2015 Undergraduate Guest Researcher

National Institute of Standards and Technology - NIST, 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 – Iecom, Brazil

Mentor: Marcelo Sampaio Alencar

2009 – **2010** High-school Reasearch Assistant

Federal Institute of Education, Science and Technology of Paraíba – IFPB

Mentor: Carlos Danilo Miranda Regis

3 Projects

May 2016 – August 2016 Point spread function photometry for fitting overlapping stars simultaneously – The Astropy Project

2016 - 2016 Statistical characterization of free space optical channels - **Iecom**

2015-2016 Signal detection in generalized fading channels – ${\bf Iecom}$

- May 2015 August 2015 Parameter estimation for photoactivated localization microscopy (PALM) NIST
- 2013 2014 Multiplatform software for objective stereoscopic image and video quality assessment Iecom
- 2012 2013 Stereoscopic video quality estimation using objective algorithms Iecom
- 2012 2012 Development of a novel objective algorithm for video quality assessment Iecom
- 2009 2010 Reuse of obsolete computer hardware for digital and social inclusion IFPB

4 Publications

See https://mirca.github.io/publications

5 Competencies

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

Favourite courses: Data Analysis, Stochastic Processes, Adaptive Signal Processing, Random Signal Theory, Information Theory, Estimation and Detection Theory

Languages: Native Portuguese, Fluent English

6 Awards

- 1. Selected to GitHub's Field Day, San Francisco, USA, 2017
- 2. Selected to the Python in Astronomy Conference, Leiden, The Netherlands, 2017
- 3. Selected to the São Paulo School of Advanced Science on Nanophotonics, 2016
- 4. Travel Grant Recipient, Antennas and Propagation Symposium, IEEE, 2016
- 5. Young Author Recognition Award, International Telecommunication Union, ITU Kaleidoscope 2015
- 6. Young Author Recognition Award, International Telecommunication Union, ITU Kaleidoscope 2014
- 7. 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

7 Additional Information

- Participated in the IEEEXtreme 24-Hours Programming Competition in 2013, 2014, 2015, and 2016.
- Student of the week on the IEEE Students Facebook webpage