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, Silicon Valley, USA

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 Engineering and Computer Science

Federal University of Campina Grande - UFCG, Brazil

Fall 2015 - 2016 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 – **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: Stochastic Processes, Information Theory, Random Signal Theory, Estimation and Detection Theory, Adaptive Signal Processing, Data Analysis

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, São Paulo, Brazil, 2016
- 4. Travel Grant Recipient, IEEE Antennas and Propagation Symposium, Puerto Rico, 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
- Attended NASA Ames Machine Learning Workshop, 2017.