

# José Vinícius de Miranda Cardoso

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

jvmirca@gmail.com  
<http://mirca.github.io>

## 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

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