

# Juan Cruz Rodriguez

---

## Education

- PhD in Computer Science:  
“Análisis e integración de información de datos biológicos mediante análisis funcional”  
FAMAF - National University of Córdoba (2014 - 2019)
- MSc in Applied Statistics  
FCA, FCE and FAMAF - National University of Córdoba (2014 - )
- MSc in Computer Science  
FAMAF - National University of Córdoba (2007 - 2012)
- BSc in Computer Science  
FAMAF - National University of Córdoba (2007 - 2009)

## Teaching Activities

- Teaching Assistant  
FAMAF - National University of Córdoba (**May 2014 - Present**)  
Algorithms and Data Structures
- Teaching Associate  
Faculty of Engineering - Catholic University of Córdoba (2013 - 2014)  
Programming in Python
- Student Assistant  
FAMAF - National University of Córdoba (2011 - 2012)  
Algorithms and Data Structures II & Databases

## Industry Experience

- Data Scientist  
Winclap (**February 2020 - Present**)
- Software Engineer  
Applied Research (INVAP; *June 2013 - October 2013*)  
C ++ / Qt
- QA Engineer  
HPC Group at Intel Corporation (*June 2012 - June 2013*)  
C, Perl, Python, Bash

## R Packages

### CRAN

- rco: The R Code Optimizer.
- autokeras: R Interface to ‘AutoKeras’.
- rflights: Query Plane Tickets using the ‘Kiwi’ API.

### Bioconductor

- MIGSA: Massive and Integrative Gene Set Analysis.

### GitHub

- shinyParallel: Run Shiny Applications in a Multi-Session Mode.
- shinyWYSIWYG: Shiny What You See Is What You Get (WYSIWYG) editor.
- interactingan: Interactive Presentation Ninja.
- heyshiny: New shiny input that translates audio to text.

## Awards and Distinctions

- University Award  
Diploma with Special Mention  
National University of Córdoba to the second best average of 2011 graduates
- Substitute for First Escort  
FAMAF - National University of Córdoba (2011)

## Scholarships

- 2019 Google Summer of Code student w/R-project  
Was awarded a GSoC project to develop the R Code Optimizer, `rco`, R package.
- Fulbright exchange visiting scholarship  
At the University of Florida (2018)
- Doctoral Scholarship  
National Scientific and Technical Research Council, Argentina (CONICET; 2013 - 2019)
- Master's Scholarship  
Government of Córdoba, Argentina (2007 - 2011)

## Publications

### 2019

- Rodriguez, J. C., Luraschi J.  
Auto-Keras: An R easily accessible deep learning library.
- Rodriguez, J. C., Merino, G. A., Llera A. S., Fernández, E. A.  
Massive integrative gene set analysis enables functional characterization of breast cancer subtypes. **(Journal)**

### 2018

- Rodriguez, J. C., Vargas Rojas C., Fernández, E. A.  
ShinyWYSIWYG: a Shiny What You See Is What You Get editor.

### 2017

- Rodriguez, J. C., Prato L., Llera A. S., Fernández, E. A.  
Effects of RNA-Seq data gene analysis methods, on the over-representation analysis of gene sets.

### 2016

- Rodriguez, J. C., González, G. A., Fresno, C., Llera, A. S., Fernández, E. A.  
Improving Information Retrieval in Functional Analysis. **(Journal)**
- Rodriguez, J. C., Merino, G. A., Prato L., Llera A. S., Fernández, E. A.  
The impact of RNA-Seq differential expression algorithms on Over-Representation Analysis of Gene Sets.

### 2015

- Rodriguez, J. C., González, G., Fresno, C., & Fernández, E. A.  
Integrative Functional Analysis Improves Information Retrieval in Breast Cancer.
- Fresno C., González G. A., Merino G. A., Rodriguez J. C., Balzarini M., Fernández E. A.  
DNA Microarrays Quality Control by ANOVA-PCA / PLS decomposition.

---

## Research Exchange

- At the Ana Conesa Lab.  
University of Florida, USA (*October 2018 - December 2018*)
- At the Genomics of Gene Expression group.  
Centro de Investigación Príncipe Felipe, Valencia, Spain (*October 2017 - December 2017*)  
DEANN project (Marie Curie IRSES, European Commission, 2013)