# Juan Cruz Rodriguez

# Education

- o PhD in Computer Science
  - FAMAF National University of Córdoba (2014 2019 est.)
- MSc in Applied Statistics
  - FCA, FCE and FAMAF National University of Córdoba (2014 2019 est.)
- o MSc in Computer Science
  - FAMAF National University of Córdoba (2007 2012)
- o 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
- o 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

- 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

### **Bioconductor**

o MIGSA: Massive and Integrative Gene Set Analysis

### GitHub

- o autokeras: R interface to Auto-Keras
- o KerasModelCreator: Visually design Keras models for R language
- o shinyWYSIWYG: Shiny What You See Is What You Get (WYSIWYG) editor
- o shinyParallel: Run Shiny applications in a multi-session mode

## Awards and Distinctions

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

# Scholarships

- o 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., Merino, G. A., Llera A. S., Fernández, E. A.
 Massive integrative gene set analysis enables functional characterization of breast cancer subtypes. (Journal)

#### 2018

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

#### 2017

o 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

- o 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

- o Rodriguez, J. C., González, G., Fresno, C., & Fernández, E. A. Integrative Functional Analysis Improves Information Retrieval in Breast Cancer.
- o 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

- o At the Ana Conesa Lab.
  - University of Florida, USA (October 2018 December 2018)
- o 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)