

# JENNIFER VÉLEZ SEGURA

## Master in Bioinformatics - Biologist

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📍 Bogotá D.C., Colombia



## PROFILE

Biologist with knowledge in classical cytogenetics (karyotypes in bone marrow, amniotic fluid and blood samples) and Master in Bioinformatics. Skills programming in Python, R, and Shell for analysis of biological data and using data mining techniques. Experience in WES and WGS for diagnostic support. Interested in applying machine learning techniques in biological data.

## EXPERIENCE

### Bioinformatician and Cytogeneticist

#### Genetix S.A.S

📅 January 2015 – May 2020

📍 Bogotá D.C., Colombia

- Cytogenetic analysis of samples in peripheral blood, bone marrow, amniotic fluid and chorionic villi.
- Design and implementation of bioinformatic pipelines for the analysis of biological sequences.
- Analysis Whole Genome Sequencing (WGS) and Whole Exome Sequencing (WES).

### Cytogeneticist

#### Biogenética Diagnostica SAS

📅 May 2013 – Nov 2014

📍 Bogotá D.C., Colombia

- Cytogenetic analysis of samples of blood, bone marrow, amniotic fluid and chorionic villi.
- Sowing and harvesting samples in peripheral blood and bone marrow.

### Cytogeneticist

#### Laboratorio de Genética y Biología Molecular

📅 2013 – 2012

📍 Bogotá D.C., Colombia

- Cytogenetic analysis of samples of blood, bone marrow, amniotic fluid and chorionic villi.
- Sowing and harvesting samples in peripheral blood and bone marrow.

## MY LIFE PHILOSOPHY

*"Problems and looking for solutions are part of life."*

## MOST PROUD OF



#### Learn to code

to be able to develop solutions to biological problems.



#### Learn Machine Learning

and be able to apply it to understand a variety of datasets.



#### Being a speaker in Pycon Colombia

and to show other people what can be done with Python and R.



#### Winner of challenges in data science:

The first challenge Stem Sports y Big Data Colombia 2016 and Winner of the first Hackaton Scotiabank-Colpatria Group Customer segmentation 2018

## STRENGTHS

Teamwork.

Problem solving

Continuous learning

Shell

Shiny

Python-Pandas

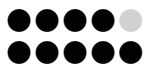
R-tidyverse/bioconductor

Work in the laboratory

## LANGUAGES

English

Spanish



## EDUCATION

### Master in Bioinformatics

#### National University of Colombia

📅 February 2015 – December 2019

Thesis: Association of variants in the regions in genes coding with clinical data in Colombian patients using data mining.

### B.S. Biology

#### Universidad Distrital Francisco José de Caldas

📅 2012

## ACHIEVEMENTS



#### Begin as a student

in Django Girls and then I become a guide, this has been one of the most rewarding experiences of my life



#### Cabana Travel Fellowships

Scholarship to present the initial model of my master's thesis in Chile 2018



#### Being evaluator

in ScipyLatam in Bioinformatics area

## PUBLICATIONS

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### Journal Articles

- Venegas, Eliana del Pliar Garzón et al. (2018). "Autopsia molecular en muerte súbita cardíaca neonatal mediante secuenciación de siguiente generación (NGS): presentación de un caso". In: *Revista Repertorio de Medicina y Cirugía* 27 (1), pp. 39–43.

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### Conference Proceedings

- Vélez, Jennifer (2019). "Association of variants in coding regions with clinical data in Colombian patients using data mining techniques." In: *Conference Intelligent Systems for Molecular Biology (ISMB) and European Conference on Computational Biology*.
- – (2018). "Data mining with clinical and genomic data." In: *Pycon Colombia*.
- Vélez, Jennifer and Elizabeth León (2018). "Association of variants with clinical data in a sample of the Colombian population using the Apriori algorithm." In: *ISCB-LA SOIBIO EMBnet*.
- Vélez, Jennifer (2017a). "Pipeline for evaluation of coverage in clinical panels exome as quality control alignment." In: *IV CONGRESO COLOMBIANO DE BIOINFORMÁTICA Y BIOLOGÍA COMPUTACIONAL Y VIII CONFERENCIA IBEROAMERICANA DE BIOINFORMÁTICA..*
- – (2017b). "Python para bioinformática." In: *Pycon Colombia*.

## REFEREES

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Associate Professor

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MD. Msc Human genetics

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