

# Christian Poveda-Ruiz

PHYSICIST · DATA SCIENTIST

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## Education

### Universidad de los Andes

M.Sc. IN INFORMATION ENGINEERING

Bogotá, Colombia

2016 - Present

### Universidad de los Andes

B.S. IN MATHEMATICS

Bogotá, Colombia

2012 - Present

### Universidad de los Andes

B.S. IN PHYSICS

Bogotá, Colombia

2011 - 2016

## Experience

### Universidad de los Andes

GRADUATE ASSISTANT

Bogotá

February 2018 - Present

### Rappi inc.

DATA SCIENTIST FOR OPERATIONS

Bogotá

June 2017 - February 2018

- Co-designer of the A / B testing platform used on the CPGs search engine.
- Introduced human search quality rating into the Quality Assurance process for the CPGs search engine.
- Development of a predictive model to estimate the time of payment of a debt acquired by a domiciliary. Based on this, the concept of "reliable domiciliary" in operations was redefined.
- Development of a data pipeline to monitor the distribution of supply and demand in near real time.

### Alianza CAOBA

GRADUATE RESEARCH ASSISTANT

Bogotá

July 2016 - August 2017

- Development of an interactive web application to allow monitoring of the state of the public transport service in Rio de Janeiro.
- Study on traffic and mobility in order to characterize traffic accidents according to their causes in different areas of Bogotá.
- Study on taxes of urban delineation and characterization of taxpayers in order to detect anomalous declarations of constructions in Bogotá.

## Publications

### Quantifying and controlling biases in estimates of dark matter halo concentration

*The Astrophysical Journal*, 832, 2

C. N. POVEDA-RUIZ, J. E. FORERO-ROMERO, AND J. C. MUÑOZ-CUARTAS

November 30, 2016

## Teaching

|      |  |          |
|------|--|----------|
| 2018 | <b>Professor</b> , Structural Mathematics and Logic                        | Uniandes |
| 2016 | <b>Teaching Assistant</b> , Computational Methods for Physicists           | Uniandes |
| 2016 | <b>Teaching Assistant</b> , Computational Tools for Scientists             | Uniandes |
| 2015 | <b>Instructor</b> , Integral Calculus with Differential Equations          | Uniandes |
| 2015 | <b>Teaching Assistant</b> , Electromagnetism II                            | Uniandes |
| 2014 | <b>Teaching Assistant</b> , Computational Methods for Physicists           | Uniandes |
| 2013 | <b>Teaching Assistant</b> , Computational Methods for Physicists           | Uniandes |
| 2011 | <b>Teaching Assistant</b> , Algorithmics and Object Oriented Programming I | Uniandes |

## Events

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|------|---|---------------------------|
| 2017 | <b>Assistant</b> , Tendencias en Big Data y Analytics (Pontificia Universidad Javeriana)                  | <i>Bogotá, Colombia</i>   |
| 2016 | <b>Scholarship Assistant</b> , XXIV Escuela de Verano en Física (Universidad Nacional Autónoma de México) | <i>México, México</i>     |
| 2016 | <b>Scholarship Assistant</b> , First Mexican AstroCosmoStatistics School (Universidad de Guanajuato)      | <i>Guanajuato, México</i> |
| 2013 | <b>Oral Presentation</b> , IV Congreso Colombiano de Astronomía (Universidad de Nariño)                   | <i>Pastó, Colombia</i>    |
| 2013 | <b>Assistant</b> , Assistant at Workshop de Astronomía (Universidad de los Andes)                         | <i>Bogotá, Colombia</i>   |
| 2013 | <b>Assistant</b> , Quinta Escuela de Física Matemática (Universidad de los Andes)                         | <i>Bogotá, Colombia</i>   |
| 2010 | <b>Assistant</b> , Workshop on Physics and Technology at CERN (Universidad Nacional de Colombia)          | <i>Bogotá, Colombia</i>   |

## Programming

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- As a general purpose programming language.
  - Experience using Numpy, Pandas and PySpark for data processing.
  - Experience using Scikit-learn and Tensorflow for machine learning.
  - Experience using Flask and Unicorn for backend web development.
- Python**
- Mainly for optimizing specific tasks in scientific programming.
  - Experience writing Python modules over CPython.
- C**
- As a fast development programming language.
  - Experience developing web applications using Echo and Gorilla/Mux.
- Go**
- For Systems Programming in several contexts.
  - Experience developing basic web applications.
  - Experience writing embeddable modules for Python.
  - Done small contributions to Rust related projects like Servo, Cargo and Rust itself.
- Rust**
- Experience using ReactJS for frontend web development.
  - Developed interactive dashboards for near real-time monitoring.
  - Basic knowledge of D3.js for Data visualization.
- Javascript**
- As a general purpose programming language.
  - Some experience using Hadoop for data processing.
- Java**
- As a general purpose programming language.
  - Experience writing concurrent applications using OTP.
  - Some experience writing ETL tools.
  - Some experience using Plug for backend web development.
- Elixir**
- Experience using Git for VCS.
  - Experience using Docker to deploy microservices and other applications.
  - Experience using Redis for real-time data processing.
  - Experience using MongoDB including its geospatial features.
  - Experience using PostgreSQL.
  - Proud Linux user since 2010.
- Others**