

Christian Poveda-Ruiz

COMPUTER SCIENTIST · PHYSICIST

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Education

IMDEA Software

PHD STUDENT

Madrid, Spain

2020 - Present

Universidad de los Andes

M.ENG. IN SYSTEMS AND COMPUTING ENGINEERING

Bogotá, Colombia

2016 - 2019

- DISSERTATION: Bounded generics over constants in Rust

Universidad de los Andes

B.S. IN PHYSICS

Bogotá, Colombia

2011 - 2016

- DISSERTATION: A semi-analytic approach to formation processes in galaxies

Experience

IOTA Foundation

SOFTWARE ENGINEER

Berlin, Germany

July 2020 - Present

Universidad Sergio Arboleda

FULL-TIME PROFESSOR

Bogotá, Colombia

February 2020 - July 2020

- In charge of the mainstreaming process for introductory Computer Science courses.
- Designed the syllabi for the courses on compilers and algorithm design for the new program in computer science.

The Rust Compiler Project

CONTRIBUTOR

October 2017 - Present

- Added support for Integer-Pointer casts in Miri to allow pointer arithmetic.
- Implemented distinct primitives for interpreter-host communication in Miri.
- Weakened several compiler checks to expand constant evaluation support.
- Currently developing a symbolic evaluator for the compiler to verify complex constraints in generics over constants.

Fermi National Accelerator Laboratory

CMS SITE SUPPORT OPERATOR

Batavia, Illinois, United States

June 2019 - November 2019

- Responsible for monitoring and troubleshooting all the services of the CMS distributed computing infrastructure.

Universidad de los Andes

GRADUATE ASSISTANT

Bogotá, Colombia

February 2018 - December 2018

- In charge of one section and two laboratories of the undergraduate course in discrete mathematics and logic.

Rappi inc.

DATA SCIENTIST

Bogotá, Colombia

June 2017 - March 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.
- Developed a predictive model to estimate the time of payment of a debt acquired by a domiciliary.
- Developed a data pipeline to monitor the distribution of supply and demand in near real time.

Alianza CAOBA

GRADUATE RESEARCH ASSISTANT

Bogotá, Colombia

July 2016 - August 2017

- Developed a web application to monitor the state of the public transport service in Rio de Janeiro.
- Study on traffic and mobility in order to characterize traffic accidents in 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

Relevant Courses

2018	Concurrency and Distribution , Systems and Computing Engineering	Uniandes
2018	Programming Paradigms , Systems and Computing Engineering	Uniandes
2015	Measure and Integration , Mathematics	Uniandes
2015	Computational Complexity , Mathematics	Uniandes
2015	Mathematical Logic , Mathematics	Uniandes
2013	Computational Physics , Physics	Uniandes
2012	Number Theory , Mathematics	Uniandes
2012	Discrete Mathematics , Mathematics	Uniandes

Teaching

2019	Teaching Assistant , Programming Paradigms	Uniandes
2018	Teaching Assistant , Functional Programming with Applications in Scala	Uniandes
2018	Professor , Discrete Mathematics and Logic	Uniandes
2016	Teaching Assistant , Computational Methods for Physicists	Uniandes
2016	Teaching Assistant , Computational Tools for Scientists	Uniandes
2015	Instructor , Integral Calculus with Differential Equations	Uniandes
2015	Teaching Assistant , Electromagnetism II	Uniandes
2014	Teaching Assistant , Computational Methods for Physicists	Uniandes
2013	Teaching Assistant , Computational Physics	Uniandes
2011	Teaching Assistant , Algorithmics and Object Oriented Programming I	Uniandes

Events

2019	Scholarship Assistant , RustFest (Universitat Politècnica de Catalunya)	Barcelona, Spain
2019	Assistant , Fast Machine Learning Workshop (Fermi National Accelerator Laboratory)	Batavia, IL, USA
2017	Assistant , Tendencies in Big Data and Analytics (Pontificia Universidad Javeriana)	Bogotá, Colombia
2016	Scholarship Assistant , 24th Physics Summer School (Universidad Nacional Autónoma de México)	México, México
2016	Scholarship Assistant , 1st Mexican AstroCosmoStatistics School (Universidad de Guanajuato)	Guanajuato, México
2013	Speaker , 4th Colombian Congress in Astronomy and Astrophysics (Universidad de Nariño)	Pasto, Colombia
2013	Assistant , Astronomy Workshop (Universidad de los Andes)	Bogotá, Colombia
2013	Assistant , 5th Mathematical Physics School (Universidad de los Andes)	Bogotá, Colombia
2010	Assistant , Workshop on Physics and Technology at CERN (Universidad Nacional de Colombia)	Bogotá, Colombia

Programming

Rust	<ul style="list-style-type: none">• Main development language for the last 2 years.• Contributor to the Rust compiler and Miri for the last 3 years.• Small contributions to Rust related projects as Servo and Cargo.			
	<ul style="list-style-type: none">• Main scripting language to automatize tasks.• Used for data processing and machine learning tasks in industry.• Developed various web applications for data gathering processes.			
Python				
Other languages	<ul style="list-style-type: none">• Bash• Haskell	<ul style="list-style-type: none">• Racket• C	<ul style="list-style-type: none">• Elixir• Scala	<ul style="list-style-type: none">• Java• JavaScript
Tools	<ul style="list-style-type: none">• Git• \LaTeX	<ul style="list-style-type: none">• Z3 Theorem Prover• Docker	<ul style="list-style-type: none">• Redis• PostgreSQL	<ul style="list-style-type: none">• MongoDB• Spark

Languages

Spanish Native

English C1

German B1