

Christian Poveda-Ruiz

COMPUTER SCIENTIST · PHYSICIST

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Education

Universidad de los Andes

M.ENG. IN SYSTEMS AND COMPUTING ENGINEERING

- DISSERTATION: Bounded generics over constants in Rust

Bogotá, Colombia

2016 - 2019

Universidad de los Andes

B.S. IN PHYSICS

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

Bogotá, Colombia

2011 - 2016

Experience

IOTA Foundation

SOFTWARE ENGINEER

Berlin, Germany

July 2020 - Present

Universidad Sergio Arboleda

FULL-TIME PROFESSOR

- 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.

Bogotá, Colombia

February 2020 - July 2020

The Rust Compiler Project

CONTRIBUTOR

- 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.

October 2017 - Present

Fermi National Accelerator Laboratory

CMS SITE SUPPORT OPERATOR

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

Batavia, Illinois, United States

June 2019 - November 2019

Universidad de los Andes

GRADUATE ASSISTANT

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

Bogotá, Colombia

February 2018 - December 2018

Rappi inc.

DATA SCIENTIST

- 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.

Bogotá, Colombia

June 2017 - March 2018

Alianza CAOBA

GRADUATE RESEARCH ASSISTANT

- 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.

Bogotá, Colombia

July 2016 - August 2017

Publications

Quantifying and controlling biases in estimates of dark matter halo concentration

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

The Astrophysical Journal, 832, 2

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. 			
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