
JOSÉ BAYOÁN SANTIAGO CALDERÓN

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Education

2019 PhD Economics

Claremont Graduate University

2015 MA Economics

Claremont Graduate University

2014 BA Economics

Southwestern University

Appointments and Employment

Research Economist

[National Economic Accounts Research Group](#)

Bureau of Economic Analysis

05/21

U.S. Department of Commerce

Supervisor: [Dylan Rassier, PhD](#)

Postdoctoral Research Associate

[Social & Decision Analytics Division](#)

Biocomplexity Institute & Initiative

05/19 – 05/21

University of Virginia

Worked on multiple projects with federal and state agencies helping them meet their mission; mostly in the area of [science policy](#). These included:

- Sponsor: National Center for Science and Engineering Statistics ([NCSES](#))
 - Measuring the Scope and Impact of Open Source Software
 - Skilled Technical Workforce ([STW](#))
- Sponsor: Defense Advanced Research Projects Agency ([DARPA](#))
 - Computational Simulation of Online Social Behavior ([SocialSim](#))
- Arlington County Police Department ([ACPD](#))
 - Evaluation of the Arlington Restaurant Initiative ([ARI](#))

Assisted the infrastructure team on helping the team best use UVA computing resources (e.g., high-performance computing) and best practices (e.g., version control). Served as project lead and instructor for the Data Science for the Public Good Young Scholars Program ([DSPG](#)).

Supervisor: [Sallie Ann Keller, PhD](#)

Statistics Consultant

Pumas-AI

08/18 – 12/20

Developed the module for bioequivalence (BE) analysis in the Pumas ecosystem. This included the design, implementation, testing, documentation, maintenance, and coordination with the other components of the ecosystem. Assisted the consulting branch working on various projects for our clients.

Supervisor: [Vijay Ivaturi, PhD](#)

Data Scientist and Software Developer

Res-Intel

09/15 – 08/18

Worked on three projects:

- Residential Energy and Water Intelligence [Software](#)
- Behavioral program [analyses](#) for Southern California Edison (SCE)
- California Advanced Homes Program (CAHP) [Study](#)

Supervisor: [Hal Nelson, PhD](#)

Peer-Reviewed Publications

Mengchen Sam Yong, Lavínia Paganini, Huilian Sophie Qiu, and José Bayoán Santiago Calderón. 2021. “The Diversity-Innovation Paradox in Open-Source Software.” Pre-print, *MSR '21: Proceedings of the 18th International Conference on Mining Software Repositories* (May 19, 2021). DOI: [10.5281/ZENODO.4628556](https://doi.org/10.5281/ZENODO.4628556)

José Bayoán Santiago Calderón. 2020a. “Econometrics.jl.” *Proceedings of the JuliaCon Conferences* 1 (1): 38. DOI: [10.21105/jcon.00038](https://doi.org/10.21105/jcon.00038)

Miloslava Plachkinova and José Bayoán Santiago Calderón. 2016. “Adopting Healthcare Information Technology in Puerto Rico.” In *2016 Americas Conference on Information Systems: Spanish, Portuguese, and Latin America (LACAIS Chapter)*. San Diego, CA, August 11, 2016. <https://bit.ly/2PZiBk0>

Dissertation

José Bayoán Santiago Calderón. 2019. “On Cluster Robust Models.” PhD diss., Claremont Graduate University. DOI: [10.5642/cguetd/132](https://doi.org/10.5642/cguetd/132)

Working Papers

Christopher Vincent Rackauckas, Yingbo Ma, Andreas Noack, Vaibhav Dixit, Patrick Mogensen, Simon Byrne, Shubham Maddhashiya, José Bayoán Santiago Calderón, Joakim Nyberg, Joga Gobburu, and Vijay Ivaturi. 2020. *Accelerated Predictive Healthcare Analytics with Pumas, A High Performance Pharmaceutical Modeling and Simulation Platform*. Preprint. Pharmacology and Toxicology. DOI: [10.1101/2020.11.28.402297](https://doi.org/10.1101/2020.11.28.402297)

Selected Presentations

- Carol Ann Robbins, Korkmaz Gizem, Ledia Guci, José Bayoán Santiago Calderón, and Brandon Lee Kramer. 2021. *A First Look at Open Source Software Investment in the United States and in Other Countries, 2009-2019*. International Association for Research in Income and Wealth / Economic Statistics Centre of Excellence Conference on Measuring Intangible Assets and their Contributions to Growth. Plenary Session. London, UK, June 25, 2021. <http://iariw.org/Program-IARIW-ESCoE-2021>
- Brandon Lee Kramer, Korkmaz Gizem, José Bayoán Santiago Calderón, and Carol Ann Robbins. 2021. *A Longitudinal Analysis of International Collaboration on GitHub*. 3rd North American Social Networks Conference (NASN). Virtual, January 25, 2021. <https://bit.ly/3ea9ZyX>
- José Bayoán Santiago Calderón. 2020b. *Using Julia for Dissemination of Information About the General Election in Puerto Rico*. Government Advances in Statistical Programming (GASP!) Workshop. Virtual - Zoom, November 6, 2020. <https://bit.ly/3e4Gxu1>
- José Bayoán Santiago Calderón, Brandon Lee Kramer, Gizem Korkmaz, Carol Ann Robbins, Aaron Schroeder, and Keller Sallie. 2020. *Measuring the Cost and Impact of Open Source Software Innovation on GitHub*. Federal Committee on Statistical Methodology (FCSM) Computational Statistics and the Production of Official Statistics (CSPOS) Webinar on Blended Data. Washington, DC, May 1, 2020. <https://youtu.be/46onb1YG33k>
- Brandon Lee Kramer, Daniel Bullock, Morgan Klutzke, Crystal Zang, José Bayoán Santiago Calderón, and Gizem Korkmaz. 2020. *2020 DSPG Open Source Software Project*. Data Science for the Public Good Program Symposium. Virtual, August 7, 2020. <https://dspg2020oss.netlify.app>
- Carol Ann Robbins, Gizem Korkmaz, José Bayoán Santiago Calderón, Claire Kelling, Stephanie S Shipp, and Sallie Keller. 2018. “The Scope and Impact of Open Source Software: A Framework for Analysis and Preliminary Cost Estimates.” In *35th International Association for Research on Income and Wealth (IARIW) General Conference*, 2A5. <https://bit.ly/3tpeUSP>
- José Bayoán Santiago Calderón, Cong Cong, Calvin Isch, Eliza Tobin, Brandon Kramer, Aaron Schroeder, and Gizem Korkmaz. 2019. *Measuring the Universe of Open Source Software*. Data Science for the Public Good Program Symposium. Arlington, VA, August 9, 2019. <https://bit.ly/2y7ryyD>
- José Bayoán Santiago Calderón, Kateryna Savchyn, Victoria Halewicz, Jessica Keast, Aaron David Schroeder, and Gizem Korkmaz. 2019. *Economic And Social Impact Of Arlington Restaurant Initiative*. Data Science for the Public Good Program Symposium. Arlington, VA, August 9, 2019. <https://bit.ly/3bDVjWh>
- Carol Ann Robbins, Gizem Korkmaz, José Bayoán Santiago Calderón, Claire Kelling, Stephanie Shipp, and Sallie Keller. 2018. “Open Source Software as Intangible Capital: Measuring the Cost and Impact of Free Digital Tools.” In *The Sixth IMF Statistical Forum: Measuring Economic Welfare in the Digital Age: What and How?*, III1. International Monetary Fund (IMF). <https://bit.ly/3dkQcNP>