Rolando J. Acosta Nuñez

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Education:

Harvard University, Cambridge, Massachusetts

Doctor of Philosophy in Biostatistics   *Sep 2017 - Present*

- **Research:** Development of statistical methods to monitor human mortality and mobility. Special attention is given to the effects of natural hazards like natural disasters and epidemics. Further, of interest is to develop methods that account for both sampling and natural variability in mortality, and that are able to quantify the period of indirect effect of natural hazards.

- **Advisors:** Rafael Irizarry, Caroline Buckee, and Andrew Beam

Master of Arts in Biostatistics   *May 2020*

University of Puerto Rico in Humacao, Humacao, Puerto Rico

Bachelors of Science in Computational Mathematics (Summa Cum Laude)   *May 2017*

- **Advisor:** Joaquín Rivera

Publications:

1. **Acosta RJ**, Irizarry RA. Monitoring Health Systems by Estimating Excess Mortality. *medRxiv*. doi: https://doi.org/10.1101/2020.06.06.20120857. *Jun 2020*

2. **Acosta RJ**, Kishore N, Irizarry RA, Buckee C. Quantifying the Dynamics of Migration after a Disaster: Impact of Hurricane Maria in Puerto Rico. *medRxiv*. doi: https://doi.org/10.1101/2020.01.28.20019315. *Jan 2020*

3. **Acosta RJ**, Irizarry RA. Post-Hurricane Vital Statistics Expose Fragility of Puerto Rico's Health System. *bioRxiv*. doi: https://doi.org/10.1101/407874. Sep 2018

Research Experience:

Harvard University, Cambridge, Massachusetts

Ph.D. Student   *Sep 2017 - Present*

- **Advisors**: Rafael Irizarry, Caroline Buckee, and Andrew Beam
- **Research:** Development of statistical methods to monitor human mortality and mobility

University of Puerto Rico in Humacao, Humacao, Puerto Rico

Undergraduate Research Scientist   *Jan 2015 - May 2017*

- **Advisors**: Joaquín Rivera
- **Project:** A Model for Dengue Control in Puerto Rico Using Genetically Modified Mosquitoes (GMM)

Harvard University, Cambridge, Massachusetts

Summer Undergraduate Research Intern   *Summer 2016*

- DBMI/HST Summer Institute in Biomedical Informatics
- **Advisors:** Chirag Patel and Chirag Lakhani

- **Project:** A Geo-Temporal Database for the External Exposome

Harvard University, Cambridge, Massachusetts

Summer Undergraduate Research Intern   *Summer 2015*
- Summer Program in Biostatistics and Computation Biology
- **Advisors:** <u>Tianxi Cai</u> and Sheng Yu
- **Project:** Automated Phenotyping of Patient EMR Data: Feature Extraction and Selection

University of Iowa, Iowa City, Iowa

Summer Undergraduate Research Intern   *Summer 2014*
- Iowa Summer Institute in Biostatistics
- **Advisors:** Eric Foster and Mitchell Thomann
- **Project:** Assessing the Effect of Practical Considerations when using the CRM in Dose Finding Studies

Teaching Experience:

Interamerican University, San Germán, Puerto Rico

Virtual Instructor   *Jun 2020*
- Interamerican University Data Science Summer Institute
- Design and implemented the **Data visualization in R** class for the institute
- Topics: Introduction to the tidyverse, ggplot2, data distributions, and principles of data visualization
- Course webpage: <u>link</u>

Harvard University, Cambridge, Massachusetts

Teaching Assistant   *Jan 2020 - May 2020*
- BST 226: Applied Longitudinal Analysis
- <u>Prof. Garret Fitzmaurice</u>

Teaching Assistant   *Sep 2019 - Dec 2019*
- BST 260: Introduction to Data Science
- <u>Prof. Heather Mattie</u>

Teaching Assistant   *Sep 2018 - Dec 2018*
- BST 201: Introduction to Statistical Methods
- <u>Prof. Paul Catalano</u>

University of Puerto Rico in Río Piedras, San Juan, Puerto Rico

Teaching Assistant   *Mar 2020*
- Big Data in Biology: From Genes to the Biosphere
- <u>Prof. Rafael Irizarry</u>
- Course webpage: <u>link</u>

University of Puerto Rico in Humacao, Humacao, Puerto Rico

Instructor   *Sep 2015*
- Workshop: Introduction to Python

Math Instructor   *Jan 2013 - May 2013*
- Workshop: Introduction to Python

Relevant Activities:

Center for Climate, Health, And the Global Environment (<u>C-CHANGE</u>)
Biostatistics student ambassador to C-CHANGE   *Sep 2019 - May 2020*

Biostatistics Student Consulting Center (<u>BSCC</u>)
Biostatistic student consultant for the BSCC   *Sep 2019 - May 2020*

Interdisciplinary and Quantitative Biology Hackathon (IQ Hackathon)
Mentor for the IQ Hackathon   *Jul 2019*