Rebecca B. Silva

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EDUCATION

Columbia University, New York, NY
PhD candidate, Biostatistics
Courses: *Biostatistics Methods, Probability, Data Science, Epidemiology*

Amherst College, Amherst, MA
BA in Mathematics, May 2019
GPA: 3.84/4.00

- Relevant Courses: (Completed): *Theoretical Statistics, Real Analysis, Abstract Algebra, Probability, Multivariable Calculus, Linear Algebra, A Second Course in Linear Algebra, Data Science, Computer Science I and II. Numerical Analysis, Intermediate Statistics, Statistical Communication.*
- Selected to present summer 2018 work, "Evaluating Probabilistic Forecasts using PIT" at StatFest, Sept. 2018.
- Received high pass in Mathematics qualifying exam as a junior.
- Nominated by Department of Mathematics and Statistics to be a Peer Tutor Fellow.
- Campus Jobs: Linear Algebra Tutor, Spring 2019, Probability 360 Grader, Fall 2017 and 2018

SKILLS

Computer Languages: R, SAS, Java, SQL
Software & Tools: MATLAB, LaTeX, Github, Microsoft Office Package
Language: Advanced Spanish

RESEARCH EXPERIENCE

Williams College, Williamstown, MA
Data Science Assistant, Summer 2019

- Trained a neural network and general additive model to predict an age-adjusted time ratio for runners.
- Scraped and parsed data on US Masters Swimming site using rvest package in R.

University of Massachusetts Amherst, Amherst, MA
Research Intern, Summer 2018

- Evaluated five probabilistic ensemble forecasts for seasonal influenza in the U.S. using the Probability Integral Transform (PIT). Presented results through a 14-page write-up and 10-minute presentation.
- Designed a standard method in R to assess forecast models built by the lab using the PIT metric.
- Contributed as 8th coauthor to "A Collaborative Ensemble Approach to Real-Time Influenza Forecasting in the U.S.: Results from the 2017/2018 Season" Reich, Nicholas et al. Preprint: Summer 2018.

Boston University, Boston, MA
Summer Institute for Research Education in Biostatistics (SIBS) participant, Summer 2017

- Applied learning from lectures on statistical analysis, genetics, epidemiology, and clinical trials to computing in SAS and R. Overall grade: A.
- Conducted research on a clinical trial measuring the effect of the drug, digoxin on worsening heart failure. Used survival analysis, Poisson regression, and logistic regression to measure effects.

Williams College, Williamstown, MA
Research Assistant, Summer 2016

- Solved and wrote detailed steps and solutions for problems on probability, logic, combinatorics, and number theory for popular webpage, "Math Riddles," targeted to help teachers explain solutions to students.
- Edited draft of a Real Analysis text for undergraduate students by a Williams College professor.

ACTIVITIES

Amherst Dance, Amherst, MA
Co-President, Dec. 2016 – Present, *Member*, Sept. 2015 – May 2019

- Organize biannual shows for 100 dancers, manage budget, advertise auditions and shows, coordinate with lighting, stage, and student activities staff, and choreograph dances.

Association for Women in Science, Amherst, MA
Member, Sept. 2017 – May 2019
American Statistical Society
Member, Sept. 2018 – Present