Nehemias Ulloa

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EDUCATION

PhD in Statistics

Iowa State University, Expected: May 2019

Thesis: Bayesian Hierarchical Modeling and Analysis for Disease Outbreaks

MS in Statistics

Iowa State University, May 2017

Creative Component: Application of Polynomial Regression to Dyadic Data Advisor: Dr. Fred Lorenz

BS in Mathematics

California State University, Bakersfield, 2013

Work Experience

Iowa State University

Aug 2013 - Present

- TA: Run/assist with labs, office hours, and grading for STAT 101 (Principles of Statistics), STAT 330 (Probability and Statistics for Computer Science), STAT 401 (Statistical Methods for Research Workers), STAT 544 (Graduate-level Bayesian Statistics)
- Instructor: STAT 101 and STAT 305 (Engineering Statistics)

California State University, Bakersfield

Jan 2011 - July 2013

- TA: Helped run remedial math courses MATH 75 (Developmental Mathematics I) & MATH 85 (Developmental Mathematics II)
- Tutor: Math Deptartment Tutoring Center where I helped students in algebra through the calculus series
- Instructor: MATH 75 & MATH 85

RESEARCH EXPERIENCE

CREST(NSF), California State University, Bakersfield

June 2012 - June 2013

• RA: investigated which method of fitting a penalized broken cubic spline performs best by comparing AIC, AICcorr, BIC, CV, and GCV criterias to the RSE

REU Site: Interdisciplinary Program in High Performance Computing, University of Maryland, Baltimore County Summer 2012

- Took Math 447: Introduction to Parallel Computing
 - Learned parallel computing code using C with MPI, R with Snow, and Matlab
- My team collaborated with the Department of Natural Resources of Maryland on a project for 4 weeks where we identified trouble areas of the Chesapeake Bay using different statistical methods and ranking systems

Publications

Eduardo L. Montoya, Nehemias Ulloa, and Victoria Miller. (2014) A Simulation Study Comparing Knot Selection Methods With Equally Spaced Knots in a Penalized Regression Spline. *International Journal of Statistics and Probability*, v.3, n.3, p. p96. (URL)

Rosemary K. Le, Christopher V. Rackauckas, Anne S. Ross, and Nehemias Ulloa. (2013) Assessment of Statistical Methods for Water Quality Monitoring in Marylands Tidal Waterways. *SIAM Undergraduate Research Online (SIURO)*, vol. 6. (URL)

AWARDS

Alliance for Graduate Education and the Professoriate (AGEP) Fellowship, Iowa State University ${\bf Aug~2013-June~2018}$

• Joint-fellowship between Iowa State University, the University of Iowa, and the University of Northern Iowa dedicated to increasing the number of underrepresented minorities obtaining graduate degrees in science, technology, engineering and mathematics.

COMPUTER SKILLS Mathematical Computing: R, SAS, C++, SPSS, MPLUS, JMP

LLS Other: LATEX, Git