Nehemias Ulloa

CONTACT INFORMATION	2329 Bristol Dr. Apt 201 Ames, Iowa USA 50010

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POSITION Assistant Professor

EDUCATION

PhD in Statistics   *Expected:* **June 2019**
Iowa State University
Thesis: Bayesian Hierarchical Modeling and Analysis for Disease Outbreaks
Advisor: Dr. Jarad Niemi

MS in Statistics   **May 2017**
Iowa State University
Creative Component: Application of Polynomial Regression to Dyadic Data
Advisor: Dr. Fred Lorenz

BS in Mathematics   **May 2013**
California State University, Bakersfield

WORK EXPERIENCE

After, Inc.   **May 2018 - Dec 2018**
Norwalk, Connecticut
R Shiny Developer Intern
- Worked with statisticians within the company to develop client reports with R Shiny
- Helped create and improve reporting templates to standardize reports across clients
- Researched new Shiny features which lead to new Shiny apps and documents for others to use

Iowa State University   **Aug 2013 - May 2018; Jan 2019 - Present**
Ames, IA
Teaching Assistant
- Ran and assisted with labs in both undergraduate and graduate courses
- Held office hours to help students with a one-on-one emphasis
- Graded homework and lab assignments
- Courses: STAT 101 (Principles of Statistics), STAT 326 (Introduction to Business Statistics II), STAT 330 (Probability and Statistics for Computer Science), STAT 401 (Statistical Methods for Research Workers), STAT 544 (Graduate-level Bayesian Statistics)

Research Assistant
- Iowa State Monarch Project
- Organize, create and maintain data sets on online repository
- Create visualizations and summary statistics for reports

Instructor
- Lectured a section of introductory statistics one semester (class size $\sim$ 100) and taught online one semester
- Courses: STAT 101 and STAT 305 (Engineering Statistics)

California State University, Bakersfield   **Jan 2011 - July 2013**
Bakersfield, CA
Math Department Tutoring Center
- Tutored students from algebra through the calculus series

Instructor
- Ran hybrid course using an interactive online learning environment to help develop basic math skills
- Courses: MATH 75 (Developmental Mathematics I) & MATH 85 (Developmental Mathematics II)

Course List
Iowa State University

Fall 2013	STAT 101	Principles of Statistics	TA
Spring 2014	STAT 101	Principles of Statistics	TA
Fall 2014	STAT 401	Statistical Methods for Research Workers	TA
Spring 2015	STAT 401	Statistical Methods for Research Workers	TA
Summer 2015	STAT 330	Probability for Computer Science	TA
Fall 2015	STAT 101	Principles of Statistics	Instructor
Spring 2016	STAT 544	Bayesian Statistics	TA
Summer 2016	STAT 401	Statistical Methods for Research Workers	TA
Fall 2016	STAT 305	Engineering Statistics	Instructor
Spring 2017	STAT 544	Bayesian Statistics	TA
Summer 2017	STAT 401	Statistical Methods for Research Workers	TA
Fall 2017	STAT 101	Principles of Statistics	TA
Spring 2018	STAT 544	Bayesian Statistics	TA
Spring 2019	STAT 326	Introduction to Business Statistics II	TA
Spring 2019		ISU Monarch Project	RA

California State University, Bakersfield

Winter 2011	MATH 75	Developmental Mathematics I	TA
	MATH 85	Developmental Mathematics II	
Spring 2011	MATH 75	Developmental Mathematics I	TA
	MATH 85	Developmental Mathematics II	
		Math Dept. Tutoring Center	Tutor
Fall 2011	MATH 75	Developmental Mathematics I	TA
	MATH 85	Developmental Mathematics II	
		Math Dept. Tutoring Center	Tutor
Winter 2012	MATH 75	Developmental Mathematics I	TA
	MATH 85	Developmental Mathematics II	
		Math Dept. Tutoring Center	Tutor
Fall 2012		Math Dept. Tutoring Center	RA
Winter 2013		Math Dept. Tutoring Center	RA
Spring 2013		Math Dept. Tutoring Center	RA
Summer 2013	MATH 75	Developmental Mathematics I	Instructor
	MATH 85	Developmental Mathematics II	Instructor

RESEARCH EXPERIENCE	**CREST(NSF)**	June 2012 - June 2013

CREST(NSF)   June 2012 - June 2013
California State University, Bakersfield
- Investigated methods of fitting a penalized broken cubic spline and compared using AIC, AICcorr, BIC, CV, and GCV criterias to the RSE

Interdisciplinary Program in High Performance Computing,   Summer 2012
University of Maryland, Baltimore County
- Completed Math 447: Introduction to Parallel Computing where I learned parallel computing using C with MPI, R with Snow, and Matlab
- Collaborated with the Department of Natural Resources of Maryland to identify 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 Fellowship   Aug 2013 - June 2018
Iowa State University
- Joint-fellowship between Iowa Universities dedicated to increasing the number of underrepresented minorities obtaining graduate degrees in STEM.

PRESENTATIONS

JSM: Joint Statistical Meeting   Aug 2017
Baltimore, MD
- Contributed Poster Presentations: Social Statistics Section - An Application of Polynomial Regression to Dyadic Data

JSM: Joint Statistical Meeting   Aug 2018
Vancouver, BC, CA
- Bayesian Generalized Linear Models for Medicine Contributed Talk - Bayesian Hierarchical Models and Influenza Modeling

ACTIVITIES

STAT-ers: Statistics graduate student organization   Aug 2013 - Present
Iowa State University
- Vice President   2015 - 2016
- President   2016 - 2017

StatCom: Statistics in the Community   Aug 2015 - Present
Iowa State University
- Ran statistics station at Meeker Elementary's Science Night
- Helped a non-profit with data clean-up and summary statistics

COMPUTER SKILLS

Programming: R, SAS, C++, SPSS, MPLUS, Git, SQL, LaTeX
Statistical Computing: Stan, JAGS, Shiny, JMP

PROFESSIONAL MEMBERSHIPS

American Statistical Association

LANGUAGES

English, Spanish

PERSONAL INTERESTS

For fun outside of statistics, I enjoy riding my bike around town and playing in the soccer and ultimate frisbee summer leagues. I also enjoy playing guitar.