

## Jarad B. Niemi

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Department of Statistics  
Iowa State University  
Ames, IA 50011-1210  
niemi@iastate.edu

Office: 515.294.8679  
Fax: 515.294.4040  
<http://jarad.me>

### Education

Ph.D. Statistical Science, Duke University, 2009  
Thesis: Bayesian Analysis and Computational Methods for Dynamic Modeling  
Advisor: Mike West

M.S. Biostatistics, University of Minnesota, 2005  
Thesis: Identifying and Evaluating Contrarian Strategies for NCAA Tournament Pools  
Advisor: Brad Carlin

B.ChE. Chemical Engineering, University of Minnesota, 1999

### Academic Positions

Assistant Professor Statistics	Iowa State University 2011–present
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Assistant Professor Statistics & Applied Probability	University of California, Santa Barbara 2009–2011
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### Employment

Consultant	Boehringer Ingelheim Vetmedica, Inc.	2012–2013
	Natural Resources Research Institute	2009–2010
	Denver Health	2008
	Purdue Pharma LP	2007–2008
Research Assistant	Duke University (Mike West)	2006–2009
	University of Minnesota (Brad Carlin)	2004–2005
	University of Minnesota (Grace Peng)	2003–2004
Junior Scientist	University of Minnesota	2001–2004
	Natural Resources Research Institute	2003
Research Engineer	Procter & Gamble	1999–2001

### Publications

\* Indicates a student I am advising or co-advising.

#### In preparation

Will Landau\* and **Jarad Niemi**. Using a scale mixture of normals to improve a high-dimensional hierarchical model.

Adam Martin-Schwarze\*, **Jarad Niemi**, and Philip Dixon. Hierarchical model assessing the impacts of time to detection distribution assumptions on detection probability estimation.

Ignacio Alvarez\*, **Jarad Niemi**, Kristian Schmidt, and Alicia Carriquiry. An approximate Bayesian estimation of a Poisson Markov random field model for crash data.

Nicholas Michaud\* and **Jarad Niemi**. Evaluating the benefits of incorporating biased data for influenza forecasting.

Nicholas Michaud\* and **Jarad Niemi**. A Bayesian hierarchical model for estimating influenza epidemic severity.

**Jarad Niemi**, Nicholas Michaud\*, and Mike Ludkovski. Particle learning for Poisson-binomial state-space models.

Dennis Lock, Dan Nettleton, **Jarad Niemi**, and Casey Oliver\*. Using information underlying missing data to improve estimation of NFL field goal kicker accuracy

Schulte, L.A., **J. Niemi**, M. J. Helmers and others. Prairie strips improve biodiversity and the delivery of multiple ecosystem services from industrial maize-soybean croplands.

## Submitted Articles

Will Landau\*, **Jarad Niemi**, and Dan Nettleton. Fully Bayesian analysis of RNA-seq counts for the detection of gene expression heterosis. *submitted to the Journal of the American Statistical Association: Applications & Case Studies*

Will Landau\* and **Jarad Niemi**. A fully Bayesian strategy for high-dimensional hierarchical modeling using massively parallel computing. *submitted to the Journal of Computational and Graphical Statistics* ([arXiv](#))

## Refereed Journal Articles

Matthew Simpson\*, **Jarad Niemi**, and Vivekananda Roy. (2016) Interweaving Markov chain Monte Carlo strategies for efficient estimation of dynamic linear models. *to appear in the Journal of Computational and Graphical Statistics* ([url](#))

Lisa Schulte, Anna MacDonald, **Jarad Niemi**, and Matthew Helmers. (2016) Prairie strips as a mechanism to promote land sharing by birds in industrial agricultural landscapes. *Agriculture, Ecosystems & Environment*, 220, 55-63. ([url](#))

**Jarad Niemi**, Eric Mittman\*, Will Landau\*, and Dan Nettleton. (2015) Empirical Bayes analysis of RNA-seq data for detection of gene expression heterosis. *Journal of Agricultural, Biological, and Environmental Statistics*, 20(4), 614-628. ([url](#))

David M. Brenner, Jack Dekker, **Jarad Niemi**, and Lisa Pfiffner. (2015) Medical Oxygen Concentrators for Releasing Seed Dormancy. *Crop Science* 55(5), 2291–2293. ([url](#))

Robert B. Gramacy, **Jarad Niemi**, and Robin Weiss. (2014) Massively parallel approximate Gaussian process regression. *SIAM/ASA Journal on Uncertainty Quantification*, 2, 568–584. ([url](#))

Daniel Sheinsohn\*, **Jarad Niemi**, and Wendy Meiring. (2014) Comparison of the performance of particle filter algorithms applied to tracking of a disease epidemic. *Journal of Mathematical Biosciences*, 255, 21–32. ([url](#))

Jonathan Dess, Jennifer L. Momsen, **Jarad Niemi**, and Lisa Montplaisir. (2014) Student interpretations of phylogenetic trees in an introductory biology course. *CBE - Life Sciences Education*, 13(4), 666-676. ([url](#))

Jo Eidsvik, Benjamin A. Shaby, Brian J. Reich, Matthew Wheeler, and **Jarad Niemi**. (2014) Estimation and prediction in spatial models with block composite likelihoods. *Journal of Computational and Graphical Statistics*, 23(2), 295-315. ([url](#))

Bernie J Daigle Jr, Min K Roh, Linda R Petzold, and **Jarad Niemi**. (2012) Accelerated maximum likelihood parameter estimation for stochastic biochemical systems. *BMC Bioinformatics* 13:68. ([url](#))

----- above are since appointment at Iowa State University -----

David Banks, Gauri Datta, Alan Karr, James Lynch, **Jarad Niemi**, and Francisco Vera. (2012) Bayesian CAR models for syndromic surveillance on multiple data streams: theory and practice. *Information Fusion*: 13(2): 105–116. ([url](#))

Mike Ludkovski and **Jarad B. Niemi**. (2010) Optimal dynamic policies for influenza management. *Statistical Communications in Infectious Diseases*: 2(1): 5. ([url](#))

**Jarad B. Niemi** and Mike West. (2010) Adaptive mixture modelling Metropolis methods for Bayesian analysis of non-linear state-space models. *Journal of Computational and Graphical Statistics*. 19(2): 260–280. ([url](#))

Quanli Wang, **Jarad Niemi**, Cheemeng Tan, Lingchong You, and Mike West. (2010), Image segmentation and dynamic lineage analysis in single-cell fluorescent microscopy. *Cytometry: Part A* **77A**(1): 101–110. ([url](#))

**Jarad Niemi**, Brad Carlin, and Jon Alexander. (2008) Contrarian strategies for NCAA tournament pools: a cure for March madness? *Chance* **21**(1): 39–46. ([url](#))

Michael J. Simmons, **Jarad B. Niemi**, Don-Felix Ryzek, Cecile Lamour, Joseph W. Goodman, Wojtek Kraszkiewicz, and Ryan Wolff. (2007) Cytotype regulation by telomeric *P* elements in *Drosophila melanogaster*: Interactions with *P* elements from M' strains. *Genetics* **176**(4): 1957–1966

Cheemeng Tan, Hao Song, **Jarad Niemi**, and Lingchong You. (2007) A synthetic biology challenge: making cells compute. *Molecular BioSystems* **3**: 343–353

Kevin J. Haley, Jeremy R. Stuart, John D. Raymond, **Jarad B. Niemi**, and Michael J. Simmons. (2005) Mutations in the Su(var)2-5 gene impair cytotypic-mediated regulation of *P* element activity in *Drosophila melanogaster* through a Maternal Effect. *Genetics* **171**: 583–595.

**Jarad B. Niemi**, John D. Raymond, Ryan Patrek, and Michael J. Simmons. (2004) Establishment and maintenance of the *P* cytotypic associated with telomeric *P* elements in *Drosophila melanogaster*. *Genetics* **166**: 255–264.

Michael J. Simmons, John D. Raymond, **Jarad B. Niemi**, Jeremy R. Stuart, and Peter J. Merriman. (2004) The *P* cytotypic in *Drosophila melanogaster*: A maternally transmitted regulatory state of the germ line associated with telomeric *P* elements. *Genetics* **166**: 243–254.

Michael J. Simmons, Kevin J. Haley, Craig D. Grimes, John D. Raymond, and **Jarad B. Niemi**. (2002) A hobo transgene that encodes the *P* element transposase in *Drosophila melanogaster*: Autoregulation and cytotypic control of transposase activity. *Genetics* **161**: 195–204.

## Book Chapters

**Jarad B. Niemi** and Gerald J. Niemi. (2015) Linear regression, model averaging, and Bayesian techniques for predicting chemical activities from structure. Ebook chapter on Advances in Mathematical Chemistry and Applications , Editors: Subhash C. Basak, Guillermo Restrepo and Jose

Luis Villaveces, Bentham Publishers ([url](#))

----- above are since appointment at Iowa State University -----

## Refereed Conference Proceeding

Ignacio Alvarez\*, **Jarad Niemi**, and Matt Simpson\*. (2014) Bayesian inference for a covariance matrix. *Proceedings for the Conference on Applied Statistics in Agriculture* ([url](#))

Michael Ludkovski and **Jarad Niemi** (2011) Optimal disease outbreak decisions using stochastic simulation. *Proceedings of the 2011 Winter Simulation Conference*, eds. S. Jain, R. R. Creasey, J. Himmelspack, K. P. White, and M. Fu.

----- above are since appointment at Iowa State University -----

**Jarad Niemi**, Meredith Smith, and David Banks. (2008) Test power for drug abuse surveillance. in *Biosurveillance and Biosecurity, Proceedings of BioSecure 2008, Lecture Notes in Computer Science*, eds. Daniel Zeng, Hsinchun Chen, Henry Rolka, and William B. Lober. pp. 131–142

## Refereed Abstracts

Nicholas L. Michaud\* and **Jarad Niemi**. (2016) A Bayesian Hierarchical Model for Estimating Influenza Epidemic Severity. ISDS Annual Conference Proceedings 2015. *Online Journal of Public Health Informatics* 8:1. ([url](#))

Nicholas L. Michaud\*, Aaron Kite-Powell, and **Jarad Niemi**. (2016) CDCPlot: an Application for Viewing Weekly CDC MMWR Disease Count Data. *Online Journal of Public Health Informatics* 8:1. ([url](#))

**Jarad Niemi**. (2014) A Tool for Interactive Disease Outbreak Visualization, Detection, and Forecasting. *Online Journal of Public Health Informatics* 6:1. ([url](#))

**Jarad Niemi** and Michael Ludkovski. (2013) Tau-leaped particle learning. *Online Journal of Public Health Informatics* 5:1. ([url](#))

----- above are since appointment at Iowa State University -----

**Jarad Niemi** and Michael Ludkovski. (2011) Optimal sequential management decisions for measles outbreaks. *Emerging Health Threats Journal* 4. ([url](#))

**Jarad Niemi**. (2011) An exploratory analysis of the 2010 measles outbreak in Zimbabwe. *Emerging Health Threats Journal* 4. ([url](#))

**Jarad B. Niemi**, Michael D. Porter, and Brian J. Reich. (2008) Mixture likelihood ratio scan statistic for disease outbreak detection. *Advances in Disease Surveillance* 5:49. ([url](#))

## Book reviews

**Jarad B. Niemi**. Statistics Done Wrong: The Woefully Complete Guide. to appear in *The American Statistician*

----- above are since appointment at Iowa State University -----

**Jarad B. Niemi.** (2010) Dynamic Linear Models with R. *The American Statistician* 64:3, pg 268  
[url](#)

## Other publications

**Jarad Niemi** and Andrew Gelman. (2011) Statistical graphics: making information clear – and beautiful. *Significance* 8, 135–137

————— *above are since appointment at Iowa State University* —————

**Jarad B. Niemi.** (2010) Evaluating individual player contributions to team offense and defense: a model based approach. *JSM Proceedings, Section on Statistics in Sports*. Vancouver, BC, Canada: American Statistical Association. 4914–4923.

**Jarad B. Niemi** and Matthew Wheeler. Efficient Bayesian inference in stochastic chemical kinetic models using graphical processing units. [url](#)

Tim W. Dake, **Jarad B. Niemi**, Don L. Hughes, Jeff J. Kester, Don B. Compton, Jon J. Calderas, Rich G. Schafermeyer, and Kevin P. Christmas. Compositions having enhanced aqueous solubility and methods of their preparation. United States Patent Application 20030026872

## Presentations

### Invited Presentations at Major Conferences or Institutions

“Massively Parallel Approximate Gaussian Process Regression,” Spring Research Conference, Illinois Institute of Technology, 26 May 2016

“Stochastic dynamic models for low count observations,” Institute for Disease Modeling Symposium, 19 Apr 2016

“Particle learning for low counts in disease outbreaks,” Institute for Disease Modeling, 18 April 2016

“Massively Parallel Approximate Gaussian Process Regression,” Joint Statistical Meetings, 7 Aug 2014

“Particle learning for sequential estimation and prediction of disease outbreaks” 2013 ICSA-ISBS Joint Statistical Conference, 10 June 2013

“Particle learning for low counts in disease outbreaks” Midwest Statistics Research Colloquium, 15 Mar 2013

“A computational approach to the sequential control problem” Duke Department of Statistical Science 25<sup>th</sup> Anniversary Celebration, 20 Oct 2012

“Rejection sampling on a graphical processing unit” 11th World Meeting of the International Society for Bayesian Analysis, 28 June 2012

“Determining optimal sequential disease outbreak interventions” University of Iowa, Computational Epidemiology Seminar, 20 Jan 2012

————— *above are since appointment at Iowa State University* —————

“A sequential Monte Carlo primer” Iowa State University, Department of Statistics, Computational Statistics working group, 12 Oct 2011

“Statistical computing on graphical processing units” Iowa State University, Department of Statistics, Computational Statistics working group, 28 Sep 2011

“Time management.” UCSB IGERT Career Development Seminar Series, 12 April 2011

“Optimal dynamic policies for influenza management.” Iowa State University departmental seminar, 24 February 2011

“Optimal sequential management decisions for influenza outbreaks.” University of California, Santa Barbara Statistics and Applied Probability departmental seminar, 12 January 2011 (joint with Mike Ludkovski)

“A brief introduction to R.” University of California, Santa Barbara Quantitative Methods in Social Sciences seminar, 8 April 2010

“Early outbreak detection using syndromic surveillance networks.” University of California, Los Angeles Biostatistics departmental seminar, 19 November 2009

“A sequential Monte Carlo primer.” University of California, Santa Barbara Statistics and Applied Probability departmental seminar, 21 October 2009

“Adaptive mixture modeling Metropolis methods for state inference in nonlinear time series.” Joint Statistical Meetings, 3 August 2009

“Computational methods for general state-space models.” University of New Mexico Mathematics and Statistics departmental seminar, 19 February 2009

“Computational methods for general state-space models.” University of Michigan Statistics departmental seminar, 17 February 2009

“Computational methods for general state-space models.” University of Texas, Austin Information, Risk, and Operations Management departmental seminar, 17 February 2009

“Computational methods for general state-space models.” Johns Hopkins Biostatistics departmental seminar, 6 February 2009

“Computational methods for general state-space models.” University of California, Los Angeles Biostatistics departmental seminar, 28 January 2009

“Computational methods for general state-space models.” Iowa State Statistics departmental seminar, 26 January 2009

“Computational approaches for general state-space models.” University of California, Santa Barbara Statistics and Applied Probability departmental seminar, 12 January 2009

## Refereed Presentations at Major Conferences

“Optimal sequential management decisions for measles outbreaks” 10<sup>th</sup> International Society for Disease Surveillance 10<sup>th</sup> Annual Conference, 7 Dec 2011

————— *above are since appointment at Iowa State University* —————

“Optimal sequential management decisions for influenza outbreaks.” 9<sup>th</sup> International Society for Disease Surveillance 9<sup>th</sup> Annual Conference, 2 Dec 2010

“Mixture likelihood ratio scan statistic for disease outbreak detection.” 7<sup>th</sup> Annual Meeting of the International Society for Disease Surveillance, 3 December 2008

“Bayesian modeling and inference in single cell dynamic networks.” 39<sup>th</sup> Symposium on the Interface: Computing Science and Statistics, 26 May 2007

## Other Presentations

“Bayesian analysis for heterosis detection in RNAseq data,” Department of Statistics, Colorado State University, 11 Dec 2015

“Bayesian analysis for heterosis detection in RNAseq data,” Department of Applied Mathematics, University of Colorado-Boulder, 7 Dec 2015

“Empirical Bayes analysis for detection of gene heterosis in RNAseq data,” Conference on Applied Statistics in Agriculture, Manhattan, KS, 27 April 2015

“Empirical Bayes identification of gene heterosis using RNAseq counts,” Animal Breeding and Genetics, Iowa State University, 28 Jan 2015

“Particle learning for low counts in disease outbreaks,” Department of Statistics, Iowa State University, 16 September 2013

“Statistical Methods for Identifying Gene Expression Heterosis” Conference on Applied Statistics in Agriculture, Manhattan, KS, 30 April 2013 (joint with Dan Nettleton)

————— *above are since appointment at Iowa State University* —————

“Evaluating individual player contributions in basketball.” Joint Statistical Meetings, 4 Aug 2010

“Test power for drug abuse surveillance.” BioSecure, 2 December 2008

“Assessing the effectiveness of a national drug intervention policy.” Graduate Student Seminar Series, 17 November 2008

“Discrete-time models for intracellular processes in systems biology.” Graduate Student Research Day, Duke University, 02 April 2008

“Bayesian analysis in systems biology: Advances and impact in single-cell dynamical networks.” Graduate Student Seminar Series, 25 February 2008

“Stochastic modelling and estimation in dynamic cellular networks.” 39<sup>th</sup> Symposium on the Interface: Computing Science and Statistics, 24 May 2007 (invited, given on behalf of Mike West)

“Identifying and evaluating contrarian strategies for NCAA tournament pools.” 2006 Joint Statistical Meetings, 8 August

## Posters

Nicholas L. Michaud\*, Aaron Kite-Powell, and **Jarad Niemi**. CDCPlot: an Application for Viewing Weekly CDC MMWR Disease Count Data. 2015 International Society for Disease Surveillance Conference, 10 Dec 2015

Nicholas L. Michaud\* and **Jarad Niemi**. A Bayesian Hierarchical Model for Estimating Influenza Epidemic Severity. Epidemics5, 3 Dec 2015

Will Landau\*, and **Jarad Niemi**. A Hierarchical Modeling Strategy for Identifying Gene Expression Heterosis using Parallel Computing with Graphics Processing Units (GPUs). Conference on Applied Statistics in Agriculture, Kansas State University, Apr 2015

Eric Mittman\*, **Jarad Niemi**, and Dan Nettleton. Hierarchical Bayesian modeling of RNA-seq data with Stan. Conference on Applied Statistics in Agriculture, Kansas State University, Apr 2015

**Jarad Niemi** and Michael Ludkovski. Poisson-binomial state-space model for disease outbreaks with low

counts. International Society for Bayesian Analysis World Meeting, 16 July 2014

Ignacio Alvarez\* and **Jarad Niemi**. Bayesian Inference for covariance matrix. Conference on Applied Statistics in Agriculture, Manhattan, KS, 29 Apr 2014

**Jarad Niemi**. “A Tool for Interactive Disease Outbreak Visualization, Detection, and Forecasting” 2013 International Society for Disease Surveillance Conference, 7 Dec 2013

MacDonald, A.L., L.A. Schulte Moore, M.J. Helmers, and **J.B. Niemi**. Bird response to native habitat strips integrated into agricultural fields. International Conference on Agricultural Biodiversity and Sustainability, Hokkaido University, Japan, 29 Aug 2012

A.L. MacDonald, L.A. Schulte, M.J. Helmers, and **J.B. Niemi**. 2012. Testing a new conservation practice for agricultural landscapes: Bird response to prairie strips in row-cropped landscapes. 97th Annual Meeting of the Ecological Society of America, Portland, Oregon, 7 Aug 2012

----- *above are since appointment at Iowa State University* -----

**Jarad Niemi**. “An exploratory analysis of the 2010 measles outbreak in Zimbabwe” 2011 International Society for Disease Surveillance Conference, 7 Dec 2011

**Jarad Niemi** and Matthew Wheeler. “Parameter inference in stochastic chemical kinetic models on GPUs.” MCMSki3: 4<sup>th</sup> International IMS/ISBA Joint Meeting, 6 Jan 2011

**Jarad Niemi** and Mike West. “Nonlinear dynamic models for single-cell time-lapse microscopy.” Duke Center for Systems Biology Retreat, 18 May 2009

**Jarad Niemi** “Adaptive mixture filtering: an alternative to particle filtering?” SAMSI Sequential Monte Carlo Kickoff Workshop, 8 September 2008

**Jarad Niemi** and Mike West. “Bayesian parameter estimation for systems biological models of dynamic cellular networks.” SAMSI Biosystems Modeling Workshop, 5 March 2007

**Jarad Niemi** and Mike West. “Bayesian parameter estimation for systems biological models of dynamic cellular networks.” 1<sup>st</sup> Annual Duke Systems Biology Symposium, 14 September 2006

**Jarad Niemi** and Mike West. “Bayesian parameter estimation for systems biological models of dynamic cellular networks.” 8<sup>th</sup> Valencia International Meeting on Bayesian Statistics, 5 June 2006

#### News interviews (hyperlinked)

[CNBC](#), [CBS Moneywatch](#), [MSN MoneyCentral](#), [Slate](#) ([2009](#), [2011](#), [2012](#), [2013](#)), [The Duke Chronicle](#)



## Courses taught

### Regular courses

At Iowa State University:		
Spring 2016	STAT 544	Bayesian Statistics
Fall 2015	STAT 615	Advanced Bayesian Methods
Spring 2015	STAT 544	Bayesian Statistics
Fall 2014	STAT 401A	Statistical Methods for Research Workers
	STAT 330	Probability and Statistics for Computer Science
Spring 2014	STAT 544	Bayesian Statistics
Fall 2013	STAT 401A	Statistical Methods for Research Workers
	STAT 615	Advanced Bayesian Methods
Spring 2013	STAT 544	Bayesian Statistics
Fall 2012	STAT 401A	Statistical Methods for Research Workers
	HON 321E	Paradox
Spring 2012	STAT 401A	Statistical Methods for Research Workers
Fall 2011	STAT 615	Advanced Bayesian Methods
At University of California - Santa Barbara:		
Spring 2011	PSTAT 120C	Probability and Statistics
	PSTAT 230	Seminars and Projects in Statistical Consulting
Winter 2011	PSTAT 220B	Advanced Statistical Methods (GLMs)
Fall 2010	PSTAT 120B	Probability and Statistics
Spring 2010	PSTAT 120B	Probability and Statistics (estimation and testing)
	PSTAT 230	Seminar and Projects in Statistical Consulting
Winter 2010	PSTAT 262	Applied Bayesian Time Series

### Short courses

Dec 2015	Introduction to R for Biosurveillance	ISDS	1-day
Dec 2014	Introduction to R for Biosurveillance	ISDS	1-day
Apr 2010	Sequential Monte Carlo methods	ASA-Albuquerque	$\frac{1}{2}$ -day
Dec 2009	Introduction to statistical analysis in R	NRRI	2-day

## Grants, Honors, and Awards

D. Nettleton, P. Liu, J. Niemi, P. Schnable. Hierarchical Modeling and Parallelized Bayesian Inference for the Analysis of RNAseq Data, National Institutes of Health, September 1, 2013 to May 31, 2017 [\$1,088,156] (allocation to Niemi: 25%)

Iowa State University Health Research Initiative on Infectious Diseases (PI Michael Cho, I was one of many investigators) [\$150,000] (2012)

World Meeting of the International Society for Bayesian Analysis Early Career Researchers Travel Grant [\$500] (2012)

Iowa State University College of Liberal Arts and Sciences grant for GPU cluster and RA support [\$88,000] (2011)

----- above are since appointment at Iowa State University -----

University of California Regents Junior Faculty Fellowship [\$7,500] (2011)

MCMSki3 conference travel support [\$650] (2011)

NVIDIA Academic Partnership Program award [2×C2050 GPGPUs] (2010)

Section on Bayesian Statistical Science Student Paper Competition winner [\$1,000] (2009)

International Society for Disease Surveillance Technical Contest 2<sup>nd</sup> place (2008)

NSF National Research Service Award Fellowship (2003–2004)

## Memberships

American Association for the Advancement of Science

American Statistical Association

International Society for Bayesian Analysis

International Society for Disease Surveillance

## Service

Associate Editor for *Journal of Agricultural, Biological, and Environmental Statistics* (2016–current)

Refereeing

- Science (2016), Plos ONE (2016), Scientific Reports (2016), Annals of Applied Statistics (2015), Journal of Computational and Graphical Statistics (2014), Technometrics (2013), Electronic Journal of Statistics (2013), Journal of the American Statistical Association (2015,2014,2012), Journal of Quantitative Analysis in Sports (2014,2012), Statistics and Computing (2015,2012), Journal of Agricultural, Biological, and Environmental Statistics (2015,2012x2), Current Computer-Aided Drug Design (2012), IEEE Trans. on Systems, Man, and Cybernetics–Part C: Applications and Reviews (2011), Journal of Agricultural, Biological, and Environmental Statistics (2011), Applied Stochastic Models in Business and Industry (2011), Annals of Applied Statistics (2011x2), Computational Statistics & Data Analysis (2010), Electronic Journal of Statistics (2010), International Society for Disease Surveillance conference (2010–2013), Journal of Statistical Education (2009)

Conference organization

- International Society for Disease Surveillance Analytical Methods track chair (2012,2013)
- International Society for Disease Surveillance session chair (2010)
- Joint Statistical Meetings, Section on Statistical Computing session chair (2009)

Other statistical community service (hyperlinked if appropriate)

- Cross-validated user [2,154 rep](#)
- [International Society for Bayesian Analysis - Web Editor](#) (2013–2015)
- Professional website (<http://jarad.me/>) (2009–present)
- [News Editor for Significance Magazine](#) (2010–2012)
- Professional twitter account ([@jaradniemi](#))

University service

- ISU Transportation Advisory Council (2015–present)
- ISU Faculty Senate departmental representative (2012–present)
- UCSB faculty legislature, member (2010–2011)
- Center for research in financial mathematics and statistics, UCSB, member (2010–2011)
- Quantitative methods in the social sciences, UCSB, core faculty (2009–2011)

Departmental service

- ISU Department of Statistics
  - \* Snedecor Sustainability Committee, co-chair (2015–present)
  - \* Preparing Future Faculty mentor: Will Landau (2013–2014), Natalia da Silva (2015–current)
  - \* STAT-ers advisor (2011–present)

- \* Statistics/BCB search committee (2014–2015)
- \* Director of Statistical Consulting search committee (2014–2015)
- \* Department Chair search committee (2012–2014)
- \* Computational Statistics working group, chair (2011–2014)
- \* Computation advisory committee, member (2011–2015)
- \* Social committee (2011–2015)
- UCSB Department of Statistics & Applied Probability
  - \* Applied statistics qualifying exam committee, UCSB (2010–2011)
  - \* Computing committee, UCSB (2009–2011)
  - \* Library liaison, UCSB (2009–2011)

## Student Committees and Advisees

Table 1: Student Committees

Degree	STAT	Completed	n
MS	No	No	2
PhD	No	No	7
PhD	Yes	No	14
MS	No	Yes	8
PhD	No	Yes	4
MS	Yes	Yes	15
PhD	Yes	Yes	7

Table 2: Students Advised

Student	School	Department	Degree	Completed	Chair
Eric Mittman	ISU	STAT	MS	2015	Chair
Ignacio Alvarez-Castro	ISU	STAT	MS	2014	Chair
Adam Martin-Schwarze	ISU	STAT	MS	2014	Chair
Casey Oliver	ISU	STAT	MS	2012	Co-chair
Ignacio Alvarez-Castro	ISU	STAT	PhD	In progress	Chair
Eric Mittman	ISU	STAT	PhD	In progress	Chair
Adam Martin-Schwarze	ISU	STAT	PhD	In progress	Co-chair
Will Landau	ISU	STAT	PhD	2016	Chair
Nicholas Michaud	ISU	STAT	PhD	2016	Chair
Matthew Simpson	ISU	STAT&ECON	PhD	2015	Co-chair
Danny Sheinson	UCSB	PSTAT	MS	2011	Co-chair
Danny Sheinson	UCSB	PSTAT	PhD	2014	Co-chair