

Fletcher G.W. Christensen, M.S.

Ph.D. Candidate

Department of Statistics, University of California, Irvine

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Research Interests

Foundations of Bayesian machine learning methods, nonparametric Bayesian modeling, correlated data, meta-analysis methods, diagnostic testing, statistical decision theory

Education

PhD University of California at Irvine (UCI), Statistics, *Expected Summer 2016*

MS University of New Mexico (UNM), Statistics, 2012

PGDip University of Sheffield, Japanese Language & Culture, 2006

BA University of Oklahoma, Psychology, 2004

BS University of Oklahoma, Mathematics, 2004

Work Experience

2012-present Graduate Teaching Assistant/Associate, Dept. of Statistics, UCI

2010-2012 Graduate Student Researcher, Mind Research Network, UNM

2009-2010 Graduate Student Instructor, Dept. of Mathematics and Statistics, UNM

2004-2007 Assistant Language Teacher, Japan Exchange and Teaching Program

2001 Deputy Network Administrator, Office of Aerospace Studies, Kirtland AFB

Research

1. Luderer, U, **Christensen, F.G.W**, Kesner, J.S, Johnson, W.O, Krieg Jr, E.F, & She, J. (2017) "Associations between urinary biomarkers of polycyclic aromatic hydrocarbon exposure and ovarian function during menstrual cycles in women" *Environment International*, Tentatively accepted.
2. Zhang, G, **Christensen, F**, & Zheng, W. (2015) "Nonparametric regression estimators in complex surveys", *Journal of Statistical Computation and Simulation*, **85**, 1026-1034.
3. Çetin, M.S, **Christensen, F**, Abbot, C.C, Stephen, J.M, Mayer, A.R, Cañive, J.M, Bustillo, J.R, Pearlson, G.D, & Calhoun, V.D. (2014) "Thalamus and posterior temporal lobe show greater inter-network connectivity at rest and across sensory paradigms in schizophrenia." *NeuroImage*, **97**, 117-126.

4. Christensen, R. & **Christensen F.G.W.** (2009) Letter on “A comparison of Bayes-Laplace, Jeffreys’s, and other priors: the case of zero events.” *The American Statistician*, **63**, 197.

Current work:

- **Christensen, F.G.W.**, Johnson, W.O. “Bayesian shared-parameter modeling for longitudinal analyses involving expensive predictor data” (*In preparation for Statistics in Medicine*)
- **Christensen, F.G.W.**, Vandekerckhove, J. “Simulating like a Bayesian” (*In preparation for The American Statistician*)

Thesis work:

- Using multivariate Polya trees to generalize multiple diagnostic testing problems to the semi-parametric setting.
- Examining the distinction between marginalization and non-marginalization in computing DIC and its effect on model selection.

Selected Teaching Experience

- Winter 2016 Introduction to Probability and Statistics for Computer Science, UCI (*Instructor*)
Fall 2015 Bayesian Data Analysis, UCI (*Teaching Assistant*)
Fall 2014 Bayesian Data Analysis, UCI (*Teaching Assistant*)
Spring 2010 Introduction to Statistics, UNM (*Instructor*)
Fall 2009 Introduction to Statistics, UNM (*Instructor*)

Professional Service

- 2014-2015 Graduate Student Departmental Representative, Dept. of Statistics, UCI
2010-2013 Treasurer, Albuquerque Chapter of the American Statistical Association

Refereeing for journals:

- The American Statistician (3)
- Biostatistics (1)

Sessions chaired at professional meetings:

- 2013 Recent Developments in Bayesian Computational Methods - Invited Papers, Joint Statistical Meetings
2003 Justus F. Seely Memorial Conference on Linear Models, Oregon State University

Talks & Seminars

- Fall 2016 “Bayesian shared-parameter modeling” (*UCI Statistics Seminar Series*)
Spring 2016 “A Bayesian analysis of the effect of polyaromatic hydrocarbons on hormone levels during the human menstrual cycle” (*Invited research talk at UCI*)
Fall 2015 “Bayesian tools for evaluating distributional model assumptions” (*Advancement talk*)
Fall 2015 “A review of Bayesian variable selection procedures” (*UNM Statistics Seminar Series*)

Skills

Research tools R, OpenBUGS, JAGS, \LaTeX .

Programming Package design in JAGS and R. Programming in R, C++, and Java.

General Professional writing, graphic design, web design, audio and video editing.