200 Barnes Street
Apartment 16D
Carrboro, NC 27510

jpwill@live.unc.edu
630.709.7018

Jonathan P Williams

EDUCATION

University of North Carolina, Chapel Hill, NC 2014 - (2019 expected)
Department of Statistics and Operations Research
PhD Statistics
Advisors: Dr. Jan Hannig and (unofficially) Dr. Curtis Storlie, Mayo Clinic

New York University, New York, NY 2012 - 2014
Courant Institute of Mathematical Sciences
MS Mathematics
Thesis: *Penalized Least Squares Estimation of the Linear Mixed Effect Model*
Advisor: Dr. Ying Lu

Eastern Michigan University, Ypsilanti, MI 2008 - 2012
Honors College
BS double major in Economics and Mathematics, minor in Finance
Summa Cum Laude
Thesis: *Entropy and Related Principles*
Advisor: Dr. Ovidiu Calin

PAPERS

1. J P Williams, C B Storlie, T M Therneau, C R Jack Jr, and J Hannig (2018). A Bayesian approach to multi-state hidden Markov models: application to dementia progression. *Submitted to the Journal of the American Statistical Association.*
2. J P Williams and J Hannig (2018). Non-penalized variable selection in high-dimensional linear model settings via generalized fiducial inference. *To appear in the Annals of Statistics.*
3. J P Williams and Y Lu (2015). Covariance Selection in the Linear Mixed Effect Model, *Journal of Machine Learning Research: Workshop and Conference Proceedings*, 44, pp. 277–291. (NIPS conference session)
4. I Carmichael and J P Williams (2018). An exposition of the false confidence theorem. *Submitted to Stat.*

PRESENTATIONS

1. Non-penalized variable selection in high-dimensional settings via generalized fiducial inference. *27th Nordic Conference in Mathematical Statistics*, Tartu, Estonia, June 2018 (**invited**).
2. A Bayesian approach to multi-state hidden Markov models: application to dementia progression. *Graduate Seminar*, Department of Statistics and Operations Research, University of North Carolina, Chapel Hill, NC, September 2017.
3. Non-penalized variable selection in high-dimensional linear model settings via generalized fiducial inference. *Graduate Seminar*, Department of Statistics and Operations Research, University of North Carolina, Chapel Hill, NC, February 2017.
4. A Bayesian approach to multi-state hidden Markov models: application to dementia progression. *Tea Time for Science*, Biomedical Statistics and Informatics, Health Sciences Research, Mayo Clinic, Rochester, MN, August 2016.

POSTER PRESENTATIONS

1. Non-penalized variable selection via generalized fiducial inference. *AISC 2018 International Conference on Advances in Interdisciplinary Statistics and Combinatorics*, UNC, Greensboro, October 2018.
2. Non-penalized variable selection via generalized fiducial inference. *Fifth Bayesian, Fiducial, and Frequentist Conference*, University of Michigan, Ann Arbor, May 2018.
3. Generalized fiducial inference for high dimensional problems. *Invited Poster Session, Joint Statistical Meeting*, Baltimore, MD, July 2017 (**invited** poster with Jan Hannig).
4. Non-penalized variable selection in high-dimensional linear model settings via generalized fiducial inference. *Fourth Bayesian, Fiducial, and Frequentist Conference*, Harvard University, May 2017.
5. Covariance Selection in the Linear Mixed Effect Model. *Feature Extraction: Modern Questions and Challenges, NIPS*, Montreal, Canada, December 2015.

AWARDS

Graduate Student Transportation Grant – 1,000 USD — Summer 2018
Carl M. Erikson Mathematics Department Scholarship — 2011 - 2012
Regents Scholarship — 2009 - 2012
National Scholars Program Scholarship — 2008 - 2012
Leader Award Scholarship — 2009 - 2011

PROFESSIONAL ACTIVITIES

Referee for *Journal of Computational and Graphical Statistics*
Referee for *Stat*

TEACHING

STOR-BIOS Dept. Boot Camp for incoming statistics and biostatistics graduate students — Summer 2017

· Manager of the two-week Boot Camp, and instructor of the real analysis section.

Teaching Fellow, UNC, Chapel Hill, NC — 2014 - 2016

· Introduction to Statistics (Full teaching responsibilities for a class of 46 and for a class of 83 students).
· Introduction to Statistics (Teaching Assistant).
· Undergraduate Regression Analysis (Teaching Assistant).

WORK EXPERIENCE

Research Collaborator, Mayo Clinic, Rochester, MN — 2017 - Present
Reference: Dr. Curt Storlie, Associate Professor of Biostatistics - Storlie.Curt@mayo.edu

Biostatistics Intern, Mayo Clinic, Rochester, MN — Summer 2016
Reference: Dr. Curt Storlie, Associate Professor of Biostatistics - Storlie.Curt@mayo.edu

Statistical Consultant, Caster Concepts, Inc, Albion, MI — 2011 - 2014
Reference: Dr. Bill Dobbins, President and CEO - bdobbins@casterconcepts.com

Tutor, Eastern Michigan University, Ypsilanti, MI — 2009 - 2012
Tutored students in Economics and Mathematics.
Reference: Dr. Kemper Moreland, Professor - kmoreland@emich.edu

OTHER ACTIVITIES

Fed Challenge Competition - Chicago Federal Reserve District
March 2008, November 2008, 2009, 2010, 2011

ADDITIONAL REFERENCES

Dr. Jan Hannig
Professor of Statistics
Department of Statistics and Operations Research
University of North Carolina at Chapel Hill
hannig@email.unc.edu

Dr. Curtis Storlie
Associate Professor of Biostatistics
Health Sciences Research
Mayo Clinic
Storlie.Curt@mayo.edu