JING ZHOU

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EDUCATION

The University of North Carolina at Chapel Hill (UNC-CH), *NC, USA*

- Ph.D., Biostatistics, Aug. 2009- May 2014
  Dissertation topic: Nonparametric Bayes Methods for High Dimensional Exposures and Outcomes
  Advisors: Dr. Amy Herring & Dr. David Dunson

University of Waterloo, *Ontario, Canada*

- M.Math., Statistics, Aug. 2008
  Master Thesis: Principal Components Selection of Predictors in Linear Mixed Effects Models for Longitudinal Data

Shanghai University of Finance & Economics (SUFE), *Shanghai, China*

- B.S., Mathematical Statistics, June 2007
- B.A., Business English, June 2007

HONORS & AWARDS

- Delta Omega, 2014
- ENAR Distinguished Student Paper Award, 2014
- Winner of ASA Biopharmaceutical Section Student Paper Awards, 2013
- NSF Travel Award, 9th Workshop on Bayesian Nonparametrics (BNP), 2013
- UNC Biostatistics Department Travel Award, Spring 2013, Fall 2013
- Max Halperin Scholarship, Department of Biostatistics, UNC-CH, 2010, 2011
- Statistics and Actuarial Science Chair's Award, University of Waterloo, Winter 2008, Spring 2008
- University of Waterloo Graduate Scholarship, University of Waterloo, Winter 2008, Spring 2008
- Outstanding Graduate of SUFE, Shanghai University of Finance & Economics, 2007
- 1st place in Shanghai & 2nd place in China,
  China Undergraduate Mathematical Contest in Modeling (CUMCM), China, 2006
- National Scholarship, Shanghai University of Finance & Economics, 2003-2007
- People's Scholarship, Shanghai University of Finance & Economics, 2003-2007

WORK EXPERIENCE

Kaiser Permanente Washington Health Research Institute, *Seattle, WA*
Biostatistician II, 2017-present

- Build a risk prediction model to identify unrecognized dementia in the health system using various machine learning methods with statistical and clinical predictors interpretable
- Developed an advanced Bayesian joint model to study the association between longitudinal glucose and time-to-dementia and conquered several statistical challenges
- Processed health wearable device data to compare intervention effect
- Provided statistical expertise and conducted analysis to multiple ongoing clinical trials and observational studies

Genentech Inc., *South San Francisco, CA, USA*
Statistical Scientist, June 2014 - May 2017

- Contributed as the primary statistician for multiple clinical trials leading to valuable drug approvals
- Effectively collaborated with scientific and non-scientific partners in team settings to solve data-driven problems
- Managed statistical programmers, provided guidance on statistical analyses, and ensured the accuracy and validity of outputs
- Mentored an intern in building Bayes models to efficiently predict response rates in multi-cohort trials

Summer Intern, May 2013- Aug. 2013

- Saved the cost of complete-based independent review of progression-free survival endpoints by extending a sample-based strategy to eliminate local evaluation bias
- Independently conducted simulations of the audit strategy to compare with the existing method, and generalized it for use in boarder clinical settings

Merck & Co., Inc., *Rahway, NJ, USA*
Summer Intern, June 2012- Aug. 2012

- Developed a sample size recalculation methodology for longitudinal data under the framework of group sequential design to bring effective drugs to patients more quickly
- Verified the method through parallel computing
- Built an R package that is now widely used in the company
- Received outstanding feedback upon presenting company-wide and at the JSM conference

Collaborative Studies Coordinating Center, Department of Biostatistics, UNC-CH
Statistical programmer, Aug. 2011- May 2012

- Management of data and and quality control for an Atherosclerosis Risk in Communities (ARIC) Study, a prospective epidemiologic study with 15,792 participants started in 1987
- Conducted high-quality data cleaning, manipulation, visualization to support ARIC

Department of Biostatistics, UNC-CH
Graduate Research Assistant, Aug. 2009- Aug. 2011

- Revealed important associations between Alzheimer's disease and demographic covariates by applying advanced statistical modeling
- Conducted functional principal component analysis on a longitudinal neuro-imaging study
- Collaborated with scientists to uncover significant drug effect in RNA interference screens by multiple T-tests

Department of Civil & Environmental Engineering, University of Waterloo
Statistician **(full-time)**, Sep. 2008- Aug. 2009

- Provided statistical consulting in the civil engineering department on projects for the reliability of engineering systems
- Employed longitudinal analysis, survival analysis, and Bayesian inference to investigate cooling tubes from nuclear power plant systems
- Presented research reports and interpreted statistical results to non-statisticians on a weekly basis

PUBLICATIONS

Published:

Methods papers:

1. **Zhou, J.,** Herring, A.H., Dunson, D.B. (2016). "Nonparametric Bayes modeling for case control studies with many predictors", *Biometrics **72:*** 184–192.

2. **Zhou, J.,** Bhattacharya, A., Herring, A.H., Dunson, D.B. (2015). "Bayesian Factorizations of Big Sparse Tensors", *Journal of the American Statistical Association* **110(512):** 1562-1576.

3. **Zhou, J.**, Adewale A., Shentu Y., Liu J., Anderson K. (2014). "Information-Based Sample Size Re-Estimation in Group Sequential Design for Longitudinal Trials", *Statistics in Medicine* **33.22:** 3801-3814.

Collaboration papers:

4. Barnes DE, **Zhou J**, Walker R, Lee SJ, Boscardin WJ, Marcum Z, Larson EB, Dublin S. (2019). "Development and Validation of eRADAR: A Tool Using EHR Data to Detect Unrecognized Dementia", *Journal of the American Geriatrics Society:* PMID: 31612463.

5. Soria, J.C., Adjei, A.A., Bahleda, R., Besse, B., Ferte. C., Planchard, D., **Zhou, J.,** Ware, J., Morrissey, K., Shankar, G., Lin, W., Schutzman, J., Dy, G.K., Groen, H.J.M. (2017). "A phase IB dose-escalation study of the safety and pharmacokinetics of pictilisib in combination with either

paclitaxel and carboplatin (with or without bevacizumab) or pemetrexed and cisplatin (with or without bevacizumab) in patients with advanced non-small cell lung cancer", *European Journal of Cancer* **86:** 186 - 196

6. Leong, S., Moss, R.A., Bowles, D.W., Ware, J., **Zhou, J.,** Spoerke, J.M., Lackner, M.R., Shankar, G., Schutzman, J., van der Noll, R., Voest, E.E., Schellens,, J.H.M.(2017). "A Phase I Dose-Escalation Study of the Safety and Pharmacokinetics of Pictilisib in Combination with Erlotinib in Patients with Advanced Solid Tumors", *The Oncologist* **22(12),** 1491-1499.

7. Vuylsteke, P., Huizing, M., Petrakova, K., Roylance, R., Laing, R., Chan, S., Abell, F., Gendreau, S., Rooney, I., Apt, D., **Zhou, J.,** Singel, S., Fehrenbacher, L. (2016). "Pictilisib plus paclitaxel for the treatment of hormone receptor-positive, HER2-negative, locally recurrent, or metastatic breast cancer: interim analysis of the multicentre, placebo-controlled, phase II randomised PEGGY study", *Annals of Oncology* **27(11):** 2059-2066.

8. Zhang, S., Barros, S., Moretti, A., Yu, N., **Zhou, J.**, Preisser, J., Niculescu, M.,Offenbacher, S.(2013). "Epigenetic Regulation of TNFA Expression in Periodontal Disease", *Journal of Periodontology* **84(11)**: 1606-1616.

Revision Submitted:

Klasnja P, Rosenberg D, **Zhou J**, Anau J, Gupta A, Arterburn D. "An optimization pilot trial of BariFit, a mobile health intervention to promote physical activity after bariatric surgery"

To be Submitted:

Zhou J, Walker RL, Gray S, Marcum Z, Bowen JD, McCormick W, McCurry SM, Larson EB, Crane PK. "Associations between glucose levels and dementia risk do not vary across groups defined by high blood pressure and antihypertensive treatments"

Rosenberg DE, Greenwood-Hickman MA, **Zhou J**, Cook AJ, Walsh-Bailey C, Cooper J, Arterburn D, Kerr J, Owen N, Dunstan D, Green BB, McClure J. "Protocol for a Randomized Controlled Trial of Sitting Reduction in Older Adults with Obesity to Improve Cardiometabolic Health"

ORAL PRESENTATIONS (* Presenter)

1. **Alzheimer's Association International Conference (AAIC),** *LA, July 2019*
   Development and Validation of the Electronic Health Record Risk of Alzheimer's and Dementia Assessment Rule (eRADAR)

2. **ACT Research Symposium - Celebrating 25 years of collaborative research on aging and dementia,** *Seattle, WA, Aug. 2019*
   Aim 1: Multimorbidity

3. ***6th Annual ACT Research Symposium – Looking toward the Future: Innovations and Opportunities in Dementia Research,** *Seattle, WA, Aug. 2018*
   Joint Modeling of Longitudinal Glucose and Time-to-dementia among Groups Defined by Cardiovascular Risk Factors

4. ***Joint Statistical Meetings**, *Montreal, Canada, Aug. 2013*
   Information-Based Sample Size Re-estimation in Group Sequential Design for Longitudinal Trials

5. ***ENAR International Biometric Society Spring Meeting**, *Orlando, FL, Mar. 2013*
   Information-Based Sample Size Re-estimation in Group Sequential Design for Longitudinal Trials

POSTERS(* Presenter)

1. The Gerontological Society of America Annual scientific meeting, *Austin, TX, Nov. 2019*
   Hemmady SA, Rosenberg D, Hannon P, **Zhou J**. "Edit Effects of a Sitting Reduction Intervention for Obese Older Adults with Chronic Illnesses"

2. Alzheimer's Association International Conference, *Los Angeles, CA, July 2019*
   Zhou J, Walker R, Gray S, Marcum Z, Bowen J, McCormick W, McCurry SM, Larson EB, Crane PK. "Associations between glucose levels and dementia risk do not vary across groups defined by high blood pressure and antihypertensive treatments"

3. The Gerontological Society of America Annual Scientific Meeting, *Boston, MA, Nov. 2018*
   Barnes DE, **Zhou J**, Walker R, Lee S, Boscardin J, Marcum Z, Larson E, Dublin S. "Development and validation of the EHR risk of Alzheimer's and dementia assessment rule (eRADAR)"

4. International Society for Physical Activity and Health Meeting, *London, UK, Oct. 2018*
   Rosenberg D, Klasnja P, Anau J, Mack C, **Zhou J**, Filocamo K, Gupta A, Arterburn D. "BariFit: Mobile Health Intervention to Improve Physical Activity after Bariatric Surgery"

6. ***9th Workshop on Bayesian Nonparametrics**, *Amsterdam, Netherlands, June 2013*
   Sparse Tensor Factorizations for Efficient Learning of High-dimensional Categorical Data, poster presentation

7. ***International Society for Bayesian Analysis (ISBA) World Meetings**, *Kyoto, Japan, June 2012*
   Nonparametric Bayes Methods for Estimation in High-Dimensional Contingency Tables, poster presentation

CONSULTING EXPERIENCE

- Master thesis for a master student in the School of Public Health, Oct. 2018- Apr. 2019
- Scientific paper for a doctoral student in the School of Dentistry, Mar. 2011- Sep. 2011
- Master thesis for a master student in the School of Public Health, Sep. 2011

PROFESSIONAL DEVELOPMENT WORKSHOPS

1. Text Mining with Tidy Data Principles; Data Visualization: Principles and Applications in R, Tableau, and Python, *Symposium on Data Science and Statistics*, Bellevue, WA, May 29, 2019

2. Big Data, Data Science, and Deep Learning for Statisticians, *Conference on Statistical Practice*, New Orleans, LA, Feb. 14, 2019

3. Targeted Learning for Data Adaptive Causal Inference in Observational and Randomized Studies, *3rd Seattle Symposium on Health Care Data Analytics: Learning from Health Care Data to Improve Patient Outcomes and Public Health*, Seattle, WA, Oct 22, 2018

4. Joint Modeling of Longitudinal and Time-to-Event Data; Data science workflows using R and Spark, *JSM*, Vancouver, BC, Jul 28-29, 2018

5. Data Wrangling with R; Supervised and Unsupervised Methods for Statistical Machine Learning; Visualization of Biomedical Big Data, *5th Annual Summer Institute in Statistics for Big Data*, Seattle, WA, Jul11-13, 18-27, 2018

SERVICE

- Grant development support, 2017 - Ongoing
- Led journal club, "Mediation Analysis Allowing for Exposure–Mediator Interactions and Causal Interpretation: Theoretical Assumptions and Implementation with SAS and SPSS Macros." KPWHRI, Aug. 2019

COMPUTING
R, SAS, Python