

Zehang Richard Li

Contact Information

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Academic Positions

2018 - Postdoctoral Associate, Department of Biostatistics, Yale University
Supervisor: Forrest Crawford

Education

2018 Ph.D. in Statistics, University of Washington
Advisor: Tyler H. McCormick
2013 B.Sc. in Risk Management Science, The Chinese University of Hong Kong

Publications

In preparation

- [1] **Zehang R Li**, Tyler H McCormick, and Samuel J Clark. Verbal autopsy analysis using OpenVA. *In preparation*, 2017.
- [2] **Zehang R Li**, Tyler H McCormick, and Samuel J Clark. Bayesian joint spike-and-slab graphical lasso. *arXiv:1805.07051*, 2018.

Submitted papers

- [1] **Zehang R Li**, Yuan Hsiao, Jessica Godwin, Bryan D Martin, Jon Wakefield, and Samuel J Clark. Changes in the spatial distribution of the Under-Five Mortality Rate: Small-area analysis of 122 DHS surveys in 262 subregions of 35 countries in Africa. *Submitted*, 2018.
- [2] **Zehang R Li**, Tyler H McCormick, and Samuel J Clark. Bayesian inference of latent Gaussian graphical models for mixed data. *Submitted*, *arXiv: 1711.00877*, 2018.
- [3] **Zehang R Li** and Tyler H McCormick. An Expectation Conditional Maximization approach for Gaussian graphical models. *Submitted*, *arXiv:1709.06970*, 2017.
- [4] Tsuyoshi Kuniyama, **Zehang R Li**, Samuel J Clark, and Tyler H McCormick. Bayesian factor models for probabilistic cause of death assessment with verbal autopsies. *Submitted*, *arXiv:1803.01327*, 2018.
- [5] Prabhat Jha, Dinesh Kumar, Rajesh Dikshit, Atul Budukh, Rehana Begum, Prabha Sati, Patrycja Kolpak, Richard Wen, Shyamsundar J Raithatha, Utkarsh Shah, **Zehang R Li**, Lukasz Aleksandrowicz, Prakash Shah, Kapila Piyasena, Tyler H McCormick, Hellen Gelband, and Samuel J Clark. Computer versus physician coding of cause of death for Verbal Autopsies: randomised trial of 9374 deaths in 117 villages in India. *Submitted*, 2018.

Peer reviewed

- [1] Georges Reniers, Sylvia Blom, Judith Lieber, Abraham J Herbst, Clara Calvert, Jacob Bor, Till Barnighausen, Basia Zaba, **Zehang R Li**, Samuel J Clark, et al. Tuberculosis mortality and the male survival deficit in rural South Africa: An observational community cohort study. *PloS one*, 12(10):e0185692, 2017.
- [2] Georges Reniers, Sylvia Blom, Clara Calvert, Alexandra Martin-Onraet, Abraham J Herbst, Jeffrey W Eaton, Jacob Bor, Emma Slaymaker, **Zehang R Li**, Samuel J Clark, et al. Trends in the burden of HIV mortality after roll-out of antiretroviral therapy in KwaZulu-Natal, South Africa: an observational community cohort study. *The lancet HIV*, 4(3):e113–e121, 2017.
- [3] Tyler H McCormick, **Zehang R Li**, Clara Calvert, Amelia C Crampin, Kathleen Kahn, and Samuel J Clark. Probabilistic cause-of-death assignment using verbal autopsies. *Journal of the American Statistical Association*, 111(515):1036–1049, 2016.
- [4] Ngai Hang Chan, **Zehang R Li**, and Chun Yip Yau. Forecasting online auctions via self-exciting point processes. *Journal of Forecasting*, 33(7):501–514, 2014.

Working papers

- [1] Samuel J Clark, **Zehang R Li**, and Tyler H McCormick. Quantifying the contributions of training data and algorithm logic to the performance of automated cause-assignment algorithms for Verbal Autopsy. *arXiv: 1803.07141*, 2018.
- [2] **Zehang R Li**, Tyler H McCormick, and Samuel J Clark. InterVA4: An R package to analyze verbal autopsy data. *Center for Statistics and the Social Sciences Working Paper, No.146*, 2014.
- [3] Samuel J Clark, Tyler H McCormick, **Zehang R Li**, and Jon Wakefield. InSilicoVA: A method to automate cause of death assignment for verbal autopsy. *Center for Statistics and the Social Sciences Working Paper, No.133*, 2013.

Presentations and Posters

- Bayesian latent Gaussian graphical models for mixed data, *topic contributed talk*, Joint Statistical Meetings, Vancouver, 2018.
- ECM approaches for estimating Gaussian graphical model, *invited poster*, Joint Statistical Meetings, Vancouver, 2018.
- Introduction to openVA, *invited talk*, VA in CRVS Systems international meeting, Accra, Ghana, 2017.
- Introduction to openVA, *invited talk*, D4H VA Working Group meeting, Columbus, Ohio, 2017.
- Introduction to openVA, *invited talk*, WHO VA Working Group meeting, Geneva, Switzerland, 2016.
- Sparse motifs: discovering structure in massive graphs, *contributed talk*, Joint Statistical Meetings, Chicago, 2016.
- Probabilistic cause-of-death assignment using verbal autopsies, *poster*, Joint Statistical Meetings, Chicago, 2016.
- Probabilistic cause-of-death assignment using verbal autopsies, *poster*, UW Data Science Networking, Seattle, 2016.
- Compact Bayesian models of massive social graphs, *contributed talk*, Joint Statistical Meetings, Seattle, 2015.

Forecasting online auctions via self-exciting point processes, *poster*, ISI Young Statisticians' Meeting, Hong Kong, 2013.

Professional Experience

Jun - Aug 2018 Consultant, **CHAMPS Network, Emory Global Health Institute**, GA, United States
Jun - Dec 2017 Consultant, **Vital Strategies**, NY, United States
Jun - Sept 2016 Research Intern, **Microsoft Research**, Redmond, WA, United States
Jun - Aug 2012 Research Intern, **Census and Statistics Department**, Hong Kong

Teaching

July 2018 **Co-Instructor**, 2-day short course on “Bayesian Small Area Estimation using complex survey data”, Asian Population Association Conference, Shanghai, China
Apr 2018 **Co-Instructor**, 2-day short course on “Bayesian Small Area Estimation using complex survey data”, Population Association of America Annual Meeting, Denver, United States
Summer 2017 **Instructor**, STAT 394 Probability I, UW (rating: 4.3/5)
Spring 2017 **TA**, STAT 435 Introduction to Statistical Machine Learning, UW (rating: 4.7/5)
Winter 2017 **TA**, STAT 390 Statistical Methods in Engineering and Science, UW (rating: 3.5/5)

Software

SUMMER Spatio-Temporal Under-Five Mortality Methods for Estimation
openVA openVA: Automated Method for Verbal Autopsy
InterVA4 Replicate and Analyse ‘InterVA4’ software
InterVA5 Replicate and Analyse ‘InterVA5’ software
Tariff Replicate ‘Tariff’ Method for Verbal Autopsy

Honors and Awards

2018 Student Paper Award, The Section on Bayesian Statistical Science of the ASA, JSM
2016 Travel Award, UW Center for Statistics and the Social Sciences (CSSS)
2013 Blalock Fellowships, UW Center for Statistics and the Social Sciences (CSSS)
2012 Mathematical Contest in Modeling (MCM), *Meritorious Winner*
2012 Dragon Crowd SCHIESSE International Exchange Scholarships
2012 Shaw College Scholarship for Outgoing Exchange Students
2010 Faculty of Science Dean's List
2009 Scholarship for Excellent Mainland Student (four years tuition fee and living expense)

Professional Involvement

Moderator, Statistics in the Community (StatCom), 2016 - 2018
Member, New Lecturer Search Committee, Department of Statistics, UW, 2017
Department Statistical Consultant, 2014

Reviewer, *Statistica Sinica*, *Statistical Analysis and Data Mining*

Professional Societies membership: American Statistical Association, Institute of Mathematical Statistics, International Chinese Statistical Association, International Society for Bayesian Analysis, Population Association Of America, International Union for the Scientific Study of Population

Language and Skills

Programing: R, SAS, Stata, Matlab, Java, JavaScript, and L^AT_EX.

Visualization: Tableau, D3.

Languages: Mandarin (Native), Cantonese (Basic), English(Fluent), and Spanish (Elementary)