

Minchun Zhou

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| CONTACT INFORMATION | 392 Central Park West, Apt 5V New York, NY 10025 | 269-873-7563 www.MinchunZhou.com Minchun.Zhou@Vanderbilt.edu |
| RESEARCH INTERESTS | Spatio-Temporal Data Analysis, Data Visualization, Machine learning | |
| EDUCATION | Vanderbilt University , Nashville, TN Ph.D., Biostatistics, <i>Expected</i> : May 2018 Western Michigan University , Kalamazoo, MI M.S., Applied and Computational Mathematics , April 2012 Tongji University , Shanghai, China B.S., Mathematics and Applied Mathematics , June 2010 | |
| RESEARCH EXPERIENCE | Research Assistant Department of Biostatistics, Vanderbilt University Supervisors: Matthew S. Shotwell, Ph.D Provided computational support including large scale simulation and mathematical derivation for cardiac electrophysiology study. | May 2013 to Aug 2017 |
| | Research Assistant Department of Biostatistics, Vanderbilt University Supervisor: Hakmook Kang, Ph.D Provided statistical support for this multi-million study, including data cleaning, repeated measures analysis, data visualization and fMRI data analysis | May 2013 to Dec 2015 |
| WORKING EXPERIENCE | Data Scientist Intern, Mobike The fastest growing start-up company in China. Main role as Business analyst <ul style="list-style-type: none">• Generating analysis reports for company's strategy support.• Building multiple R Shinyapps for internal use, interacting with MySQL.• Scraping web data, such as phone brand information, house price. Main role as Algorithm Engineer <ul style="list-style-type: none">• Applying machine learning methods for better relocating bikes and destination prediction, such as clustering.• Applying neural network for predicting demand of bikes, such as CNN, RNN and LSTM. | May 2017 to Aug 2017 |
| PROJECTS | A Prediction Model for home values in Nashville <ul style="list-style-type: none">• Scraping web data from www.zillow.com and www.padctn.org using R.• Built a prediction model for home values in Nashville Rshinyapp: Backtest Stock Trading Algorithm <ul style="list-style-type: none">• One click to backtest trading algorithm in any time scale• Includes MACD, SMA and EMA• Incorporates differentiation, stop loss.• Downloadable Report | |

Rshinyapp: Simulating large scale fMRI Data

- Large scale data simulation
- Parallel computing in R shinyapp

Use R to make animation of your travel history!

- Mark travel history on Google map
- Make animation using R

REFEREED JOURNAL PUBLICATIONS

1. Shotwell MS, **Zhou M**, Fissell WH (2015) “Optimal Design of Perturbations For Individual Two-Compartment Pharmacokinetic Analysis” Accepted for publication in the *Journal of Biopharmaceutical Statistics*, June 2015.
2. Avison MJ, Eckstrand KL, Mummareddy N, Kang H, Cowan R, **Zhou M**, Zald D, Silver HJ, Niswender KD, “An Insulin Resistance Associated Neural Correlate of Impulsivity in Type 2 Diabetes Mellitus” (In progress)
3. **Zhou M**, Kang H, Badre D, “Double-wavelet Transform for Multi-subject Task-induced Functional Magnetic Resonance Imaging Data” (In progress)
4. **Zhou M**, Kang H “Double-wavelet Transform for Multi-subject Resting State Functional Magnetic Resonance Imaging Data” (In progress)

AWARDS

Travel Awards — Vanderbilt University, Department of Biostatistics

- Eastern North American Region Conference, Washington DC Mar 2017
- Eastern North American Region Conference, Austin, TX Mar 2016
- Eastern North American Region Conference, Baltimore, MD Mar 2014

Other Honors and Awards

- RAB Poster Award, Eastern North American Region Conference Mar 2017
- Pi Mu Epsilon, Honorary National Mathematics Society Sep 2011
- Meritorious Winner, Mathematical Contest in Modeling Feb 2010
- Runner-up, China Contemporary Undergraduate Mathematical Contest in Modeling Oct 2009
- Most Outstanding Campus Coordinator, Junior Achievement China Jun 2009

PRESENTATIONS

Conference:

- **Zhou, M.**, Kang, H., and Badre, D. “Double-wavelet Transform for Multi-subject Task-induced Functional Magnetic Resonance Imaging Data”, (Poster) 2017 ENAR Spring Meetings, Washington DC Mar 2017
- Kang, H., **Zhou, M.** “Longitudinal spatio-spectral analysis of resting-state fMRI”, (Oral) 2014 Joint Statistical Meeting, Boston, MA Aug 2014
- **Zhou, M.**, Shotwell, M.S., and Fissell, W.K. “Evaluating Novel Intradialytic Sampling Designs For Individual Pharmacokinetic Analysis Using Monte Carlo Simulation”, (Poster) 2014 ENAR Spring Meetings, Baltimore, MD Mar 2014

Vanderbilt University

- **Zhou, M.**, “Use R to animate travel history!”,(Oral) Department of Biostatistics Seminars Jan 2017
- **Zhou, M.**, “Wavelet-Based Techniques for fMRI Data Analysis” ,(Oral) Department of Biostatistics Seminars Dec 2015
- **Zhou, M.**, “High performance computing in R - Five minutes could make your simulation Five times faster”,(Oral) Statistical Computing Series, Department of Biostatistics Oct 2014

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| TEACHING EXPERIENCE | Teaching Assistant | Jan 2016 – Apr 2016 |
| | Bios 330 - Regression Modeling Strategies Instructor: Frank E. Harrell, Jr., Ph.D Department of Biostatistics, Vanderbilt Univeristy | |
| | Teaching Assistant | Aug 2014 – Dec 2014 |
| | Bios 345 - Advanced Regression Analysis I Instructor: Hakmook Kang, Ph.D Department of Biostatistics, Vanderbilt Univeristy | |
| | Teaching Assistant | Aug 2011– May 2012 |
| | Math 1160 - Finite Mathematics with Applications Instructor: Mark Schreiner Department of Mathematics, Western Michigan University | |
| SOFTWARE SKILLS | Proficient in R, MATLAB, Python, SQL, Markdown Basic knowledge in Tensorflow, Spark | |

Last update: October, 2017