Weicheng Zhu

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Education

2014–present	**Ph.D., Statistics**, *Iowa State University*, US.
2010–2012	**M.S., Statistics**, *Chung-Ang University*, S. Korea.
2008–2010	**B.S., Statistics**, *Kunsan National University*, S. Korea.
2006–2008	**B.S., Statistics**, *Ludong University*, China.

Experience

2017 summer — **Graduate Research Intern**, *Amazon Inc.*.
Worked as an applied machine learning scientist at Transaction Risk Management Systems (TRMS) team in Amazon. Projects are confidential.

2015-present — **Research Assistant**, *Center for Survey Statistics and Methodology*.
Selected projects:
- Applied poststratification, Jackknife methods to the U.S. Pet Ownership Survey; developing split questionnaire design method for 2017 pet survey
- Performed statistical inference using generalized linear mixed models on the SIPP Synthetic Beta data set
- Responsible for writting Pseudo Point Generation chapter in the National Resources Inventory Documentation project
- Responsible for spatial–temporal data visulization for Des Moines highway traffic using Shiny
- Developed Shiny application to visualize Cropland Data Layer data and NRI data simultaneously in the NRI forcasting project

2014 – 2015 — **Teaching Assitant**, *Department of Statistics, Iowa State University*.
Junior level Probability and Statistics for Computer Science; 100+ stuendts

2012 – 2014 — **Assitant in Technical Support Department**, *DataSolution Inc.*, Seoul, S.Korea.
- Provided statistical consulting service for international companies such as Acorn, XiShu
- Collaborated in the development of SPSS Korean Plus using Python and wxPython
- Responsible for text mining of the Vioce of Customer (VOC) data in CJ Korea Express Big Data Pilot project using IBM Watson Content Analytics
- Experienced in using Hadoop system, mainly focused on the usage of Hive/RHive
- Collaborated in the development and maintaining of company's website using ASP and ASP.NET
- Created and maintained an internal learning website using Wordpress
- Collaborated in the web application development of the Education Faculty System of Chung-Ang University using ASP.NET and IBM SPSS DataCollection

2012 — **Server administrator**, *Department of Statistics, Chung-Ang University*.
- Installed and administered a linux server for the department
- Built and maintained a CRAN mirror of South Korea

2011 – present	**Core member**, *Capital of Statistics (COS, a major statistical community in China)*.
	○ Moderator of the COS community in R language.
	○ Collaborated with the team of COS in translating the book, *ggplot2: Elegant Graphics for Data Analysis* by *Hadley Wickham*, from English to Chinese, wihch was published by Xi'an Jiaotong University Press in May, 2013. I was responsible for the translation of chapter 3 and 4 and revision chapter 7 and 8.

Presentations

Feb. 2016	**Preferential Sampling In Geostatistics and Environmental Monitoring**, *Survey Working Group Seminars*, Link.
May 2016	**Shiny Tutorial**, *Central Iowa R User Group*, Link.
Dec. 2013	**R and Fortran Interface**, *Ewha Womans University, S. Korea*, Link.
May 2012	**R Tutorial lectures** , *Chung-Ang University, S. Korea*, Link.

Software packages

`Spatial.jl`	A julia package for spatial data analysis, available on Github, still under development (Author)
`RFlavor.jl`	A julia package supplying R user friendly functions, available on Github (Coauthor)
`edcc`	R package for Ecnomic Design of Control Charts, available on CRAN (Author)
`PedCNV`	An implementation for association analysis with CNV data in R, available on CRAN (Coauthor)
`knitr`	A general-purpose package for dynamic report generation in R (Contributor)

Computer skills

OS	Mac, Linux, Windows
Programming	R, Python, Julia, Matlab, C/C++, Fortran, Java, C#
Tools	Git, LaTeX, Emacs, Markdown, Shiny, Bookdown
Others	HTML/CSS, Javascript, MySQL, Hadoop

Selected Honors

2015	**2nd place - Team Award - International Data Mining Cup**.
	The Data Mining Cup, hosted by Prudsys AG, is an international data mining competition for universities. In 2015, a total of 188 teams from 48 countries participated in the challenge which involved predicting coupon usage rates and basket value for real costumers of an online shop. Our predictions landed us 2nd (and 3rd) overall and we were invited to Berlin to present our results

Interests

Research	Nonparametric methods, Functional data analysis, Data mining, Spatial statistics, Statistical Computing, Data visualization
Hobbies	eSports, Web development, Table tennis, Basketball, Fishing, Cooking, Boardgames, Photography, Magic, Hacking

Languages

Chinese, English, Korean