
Liang Jing <ljing918@gmail.com>

6131 Amherst Bay
San Antonio, TX 78249

<http://georglsm.r-forge.r-project.org/site-projects/>
(210)396-8553

OBJECTIVE

To build a career as **Statistical Modeler and Analyst**, and apply my analytical, statistical and programming skills to solve challenging problems in predictive modeling, data mining, data analysis and prediction

SKILLS

Programming and Software

- Proficient programming with **R, S-plus, C++ and Matlab**
- Familiar with Weka, SQL, SAS, Mathematica, Excel
- Proficient user of high-performance Unix cluster, Linux and Windows OS
- Working experiences on parallel computing and large data handling

Quantitative, Analytical and Statistical Skills

- **Statistical modeling and diagnostics:** linear and logistic models, GLMs, GLMMs, and hierarchical models
- **Data mining models and algorithms** for regression, classification, and clustering
- Statistical computing, Monte Carlo methods, and numerical analysis methods
- Time series, risk analysis, and stochastic process

EDUCATION

Ph.D. in Applied Statistics, University of Texas at San Antonio (UTSA)	2011
M.S. in Physics, Indiana University at Bloomington (IUB)	2006
B.S. in Physics, University of Science and Technology of China (USTC)	2004

EXPERIENCES

Hierarchical Model Estimation and Checking, PhD Dissertation

Aug 2009 – Present

- Analyzed spatial data and financial time series data with hierarchical predictive models
- Applied up-to-date robust Markov chain Monte Carlo algorithms for posterior sampling
- Explored a variety of Bayesian model checking and selection methods such as DIC, posterior predictive p-value, probability integral transform
- Proposed a new model checking method based on transformed residuals

Texas County Poverty Population Modeling, Research Assistance, UTSA

Mar 2011 – Present

- Combined data sets from multiple sources and GIS shapefiles
- Fitted GLMMs with county-specific covariates and spatially-correlated latent variables
- Evaluated model fitting with Bayesian model checking methods and derived relationship between poverty and demographic factors (county average income, race composition, age, etc.)

R Package Development for Hierarchical Models

Feb 2011 – Present

- Developed package that performs posterior sampling, parameter estimation and prediction, and model checking for hierarchical models with correlated latent variables
- Programmed C++ codes that interact with R to handle heavy computational tasks of Markov chain generation and large matrices computation
- Implemented parallel computing techniques to further speed up estimation and prediction
- Hosted on R-Forge <http://georglsm.r-forge.r-project.org/>

Machine Learning for Automatic Trading System Development, CIFCO¹

Dec 2010 – Feb 2011

- Obtained stock price data from MySQL server and pre-processed the data
- Explored different predictive models, such as neural network, projection pursuit regression and multivariate adaptive regression splines, and evaluated their performance
- Generated and evaluated trading signals from predictions

Analyst, Statistical Consulting Center, UTSA

Sep 2009 – Dec 2010

- Conducted power analysis of one and two-way ANOVA models for clients
- Assisted local calling center to evaluate employees' performance

Instructor, College of Business, UTSA

Jan 2010 – Present

- Taught two undergraduate courses, *Business Statistics* and *Introduction to Statistics and Data Analysis*, which cover a wide range of fundamental statistical concepts; class sizes ranged from 30 to 60

AWARDS AND HONORS

Travel Reward , Bayesian Biostatistics Conference, Houston	Jan 2009
Outstanding Student Scholarship , USTC	2000, 2002, 2003, 2004
National Second/Third Prize , Chinese Olympic Physics/Math Contest	1998/1992

¹CIFCO = China International Futures Company