Guansong Wang

Sensitive to data, quick learner. Experienced with financial data, big data, and text scraping. Familiar with economics and pricing models, major statistics and machine learning methods. R (8 years) and Python (2 years) user, familiar with SQL, working in Linux.

Mobile: +86-18624091940
Email: wangguansong@outlook.com
Github: wangguansong
Website: http://guansong.wang/

EDUCATION

- **The University of North Carolina at Chapel Hill** **Chapel Hill, U.S.**
  Department of Economics, M.S. in Econometrics *2007 – 2014*
  - Core courses: advanced econometrics, time series, computational econometrics, measure theory, asset pricing, discrete/continuous time finance
  - M.S. thesis: *Realized Kernels with Moving Average Noise and Optimal Weights*. Adjust the bias in Realized Kernels estimator of volatility, when the microstructure noise in high frequency data is autocorrelated.
  - Research:
    * Non-parametric estimators of daily volatility of noisy price processes
    * GMM with optimal diagonal weights and efficiency lower bound
    * The empirical performance of the information-theoretic alternative to GMM
- **Peking University** **Beijing, China**
  Yuanpei Program(College), Bachelor of Economics *2003 – 2007*
  - Relevant courses: advanced mathematics (calculus), probability theory and statistics, econometrics, stochastic processes, introduction to computing, finance
  - Field trip survey: the living condition of emigrates from Sanxia area (Aug 2004)
  - Thesis: Microeconomic Analysis on the Quota of Microcredit

---

EXPERIENCE

- **Ping An Insurance (Group) Company of China** **Shenyang, China**
  Liaoning district, intern *2015*
  - Attend training classes, organize group studies.
- **The University of North Carolina at Chapel Hill** **Chapel Hill, U.S.**
  Teaching Assistant *2008 – 2012*
  - Graduate level: advanced econometrics, time series.
  - Undergraduate level: intermediate macroeconomics, economics 101, finance.
  - Teach weekly recitations, create homeworks and tests, hold office hours, write course materials, and lecture the CAPM section.

  Research Assistant *2011 – 2014*
  - Summarize papers, replicate selected results.

- Test models with Monte Carlo simulation, collect and cleanse empirical data for model fitting.

- **Hongqi Online** **Beijing, China**
  Developer *2004 – 2005*
  - Build the ASP back-end of the website database.
  - Maintain the website server and provide support for the reporters.

PROJECTS

- Volatility analysis based on high frequency records of DJIA component stocks
  - Download intra-daily records of 30 stocks from 1992 to 2013 (TAQ database, 40 billions records).
  - Extract and clean records for one stock and one day.
  - Filter out outliers and construct price processes with different sampling frequencies for each stock and DJIA.
  - Build a database of various daily volatility estimators for each stock and DJIA.
- Prices and fundamental information of Shanghai and Shenzhen stocks
  - R scripts to access and clean daily prices, volumes, intra-daily transactions, and fundamental information of stocks listed in Shanghai and Shenzhen markets.
- Zillow website scraping
  - Construct a list of all real estate in Seattle Area.
  - Scrape home details, current status, sale/rent prices and estimates.
- Historical Air Quality Index of Chinese cities
  - Collect and clean hourly AQI of five Chinese cities during 2008 – 2014.
  - Analyze the hourly, daily, monthly, and seasonly patterns of AQI.
- Analysis of online dating profiles
  - Parse HTML and natural language (Chinese) into database.
  - Report distributions of characteristics and mine for hot keywords.

SKILLS

Programming: R, C/C++, Python, Matlab, Shell script, SQL, Hadoop
Web Designing: HTML & CSS, Javascript, PHP
Languages: Chinese (native), English (fluent)