

EDUCATION

STATE UNIVERSITY OF NEW YORK AT STONY BROOK (Sep 2006-May 2010) Cumulative GPA: 3.9/4.0

- Ph. D. in Statistics (May 2010)
- M. S. in Statistics (May 2008)
- Related Coursework: Categorical Data Analysis | Regression Analysis | Mathematical Statistics | Time Series Analysis | Exploratory Data Analysis | Linear Programming | Experimental Design | Survival Analysis

PEKING UNIVERSITY (Sep 2002-Jun 2006) Major GPA: 3.6/4.0 | Cumulative GPA: 3.4/4.0

- B. S. in Statistics | Yuanpei Pilot Program (highly selective curriculum only to first year freshmen class)
- Related Coursework: Advanced Algebra & Calculus | Mathematical Modeling | Applied Multivariate Statistical Analysis | Probability Theory | Algorithms and Data Structure using C++ | Statistical Software

RESEARCH EXPERIENCE

Visiting Assistant Professor,

Dept. of Applied Math & Statistics, SUNY Stony Brook (Jun 2010-Present)

Postdoctoral Associate for Dr. Ellen LI,

School of Medicine, SUNY Stony Brook (Jun 2010-Present)

- Pathway Analysis in Inflammatory Bowel Disease studies, collaborated with *Department of Medicine, Washington University at St. Louis.*
- Large Scale Microarray Analysis with parallel super computing for dimension reduction.
- Genome-wide gene expression study to identify biomarkers for Crohns' disease and ulcerative colitis.
- Extended Structural Equation Modeling with ARCH and GARCH Time Series, applying to multivariate financial data.

Research Assistant for Prof. Wei ZHU,

Dept. of Applied Math & Statistics, SUNY Stony Brook (Jun 2007-May 2010)

- Dissertation: Structural Equation Modeling with Time Series, an improved generalized linear model applicable to time-course microarray data, functional magnetic resonance imaging (*fMRI*) data and financial models.
- Comparative study on orthogonal and geometric mean regression, collaborated with *Brookhaven National Laboratory.*
- Joint Multivariate Analysis on Aerosol Mass Spectra, funded by *SciDAC program of Department of Energy.*
- Compound Hierarchical Cluster Analysis on neuronal microarray data, collaborated with *Cold Spring Harbor Laboratory.*
- Partial Correlation Network Analysis to identify nicotine dependence *SNPs*, collaborated with *National Institution on Drug Abuse.*

B. S. thesis supervised by Prof. Zhi GENG,

School of Mathematical Sciences, Peking University (Feb 2006-Jun 2006)

- A General Review on Collective Mining of Bayesian Network from Distributed Heterogeneous Data.

Research Assistant for Prof. Xiangzhong FANG,

School of Mathematical Sciences, Peking University (Jun 2005-Aug 2005)

- Pathway analysis on traditional Chinese medical data, collaborated with *China Academy of Chinese Medical Sciences.*

TEACHING EXPERIENCE

- Instructor for undergraduate course *Survey of Probability and Statistics* (Start in Sep 2010, 180 registered students)
- Co-Instructor for graduate course *Data Analysis I* (Start in Sep 2010)
- Co-Instructor for graduate course *Statistical Computing* (Jan 2009-May 2009)
- Teaching Assistant for undergraduate course *Elementary Statistics* (Sep 2006-May 2007)

PUBLICATIONS

- Frank D, Robertson C, Hamm C, Kpadeh Z, **Zhang T**, Chen H, Zhu W, Sartor R, Boedeker E, Harpaz N, Pace N, Li E. Disease phenotype and genotype are associated with shifts in intestinal-associated microbiota in inflammatory bowel diseases. (Accepted by *Inflammatory Bowel Diseases*). (2010)
- **Zhang T**, Zhu W, and McGraw R. Joint Multivariate Analysis of Aerosol Mass Spectra. (Submitted to *Journal of Ecology and Environmental Statistics*). (2010)
- **Zhang T**, Zhang S, Wu X, Zhu W. Compound Clustering Analysis and Its Application in Microarray Study. (In preparation for *BMC Bioinformatics*). (2010)
- **Zhang T**, DeSimone R, Chen H, Hamm C, Yuan J, Gong Q, Hunt S, Dassopoulos T, Newberry R, Jiao X, Zhu W, Li E. Genome-wide expression differences in Crohn's disease and ulcerative colitis from disease- unaffected proximal margins of resected ileum. (In preparation for *Gastroenterology*). (2010)
- **Zhang T**, Zhu W. Structural Equation Modeling with Time Varying Coefficients. (In preparation for *Structural Equation Modeling*). (2010)
- **Zhang T**, Zhu W, and McGraw R. Cluster analysis combined with non-negative least squares and its application. *Journal of Physics: Conf. Series* 125. (2008)
- Leng L, **Zhang T**, Kleinman L, and Zhu W. Ordinary least squares regression, orthogonal regression, geometric mean regression and their applications in aerosol science. *Journal of Physics: Conf. Series* 787. (2007)

AWARDS

- Full-tuition scholarship at State University of New York at Stony Brook (Sep 2006-May 2010)
- Graduate Merit Award of Beijing (top 5%) (2006)
- Triple-A Student Award at Peking University (2003/2004/2005)
- Top 100 among 330,000 students in Zhejiang Province in the National University Entrance Examination (2002)

LEADSHIP

- Vice President of Stony Brook Chinese Scholars and Students Association (Mar 2007-Mar 2008)
- President of Student Union of Yuanpei Pilot Program, Peking University (Sep 2003-Sep 2004)
- Vice President of Student Union of Yuanpei Pilot Program, Peking University (Sep 2002-Sep 2003)
- Leader of the Yuanpei Debate Team (the Champion Team of PKU) (Mar 2003- Apr 2006)

SKILLS

- **Languages:** Native speaker of Mandarin Chinese; Fluent in English
- **Software:** SAS Certificated (Score 94% in SAS Advanced Programming Exam), Proficient in Excel, R, and MATLAB
- **Interests:** Reading, traveling, cycling, Chinese chess and go, classical music and writing poems.