

## Mehdi Maadooliat

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- CONTACT INFORMATION Department of Statistics  
Texas A&M University  
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WWW: <http://www.stat.tamu.edu/~maadooliat>
- CITIZENSHIP USA
- RESEARCH INTERESTS Bioinformatics, Machine Learning, Dimension Reduction, Functional Data Analysis and Skewed Distributions
- EDUCATION & TRAINING **Texas A&M University**, College Station, Texas USA  
Postdoctoral Fellow, Institute for Applied Mathematics & Computational Sciences (IAMCS), June. 2011 - present  
  
Ph.D., Department of Statistics, Aug. 2011, **GPR: 4.00**
  - Thesis Topic: Dimension Reduction and Covariance Structure for Multivariate Data, Beyond Gaussian Assumption
  - Advisor: Professor Jianhua Huang
  - Co-Advisor: Dr. Jianhua Hu (MD Anderson Cancer Center)**Marquette University**, Milwaukee, Wisconsin USA  
M.S., Mathematics, Statistics and Computer Science, Aug. 2006, **GPR: 3.96**
  - Essay Topic: Skew Normal Distribution and Maximization by Parts in Likelihood
  - Advisor: Professor Naveen Bansal**Sharif University of Technology**, Tehran, IRAN  
B.S., Department of Mathematical Science, December 2003
  - Essay Topic: Secret Sharing in Graph Theory
  - Advisor: Professor Ebadollah S. Mahmoodian
- PUBLICATIONS **Journal articles:**
  - N. K. Bansal, **M. Maadooliat** and X. Wang, "Empirical Bayes and hierarchical Bayes estimation of skew normal populations", *Communications in Statistics - Theory and Methods* **37**, 1024-1037, (2008)
  - **M. Maadooliat**, J. Hu and J. Z. Huang, "Analyzing multiple-probe microarray: estimation and application of gene expression indexes", *Biometrics*, Accepted
  - **M. Maadooliat**, M. Pourahmadi and J. Z. Huang, "Robust estimation of the correlation matrix of longitudinal data", *Statistics and Computing*, Accepted. DOI: 10.1007/s11222-011-9284-6
  - J. Z. Huang, M. Chen, **M. Maadooliat** and M. Pourahmadi, "A cautionary note on generalized linear models for covariance of unbalanced longitudinal data", *Journal of Statistical Planning and Inference* **142**, 743-751, (2012)

- **M. Maadooliat**, J. Z. Huang and J. Hu, “Integrating data transformation in principal components analysis”, Submitted

#### WORKING PAPERS

- **M. Maadooliat**, J. Z. Huang and X. Gao, “A goodness of fit test for protein conformation sampling”
- **M. Maadooliat**, M. Genton and J. Z. Huang, “Skewed probabilistic principal component analysis”
- L. Chen, M. Pourahmadi and **M. Maadooliat**, “Regularization of multivariate regression models with skewed errors”

#### TEACHING EXPERIENCE

- Graduate Teaching Assistant, TAMU **January 2010 - May 2011**  
 - **January 2007 - Dec. 2008**
- Full teaching responsibility for  $\sim 50$  students per semester in three undergraduate courses STAT 303, STAT 302, and STAT 211
  - Independently developed lecture notes, exams, activities, and quizzes
- Graduate Assistant Grader, TAMU **September 2006 - Dec. 2006**
- Graded assignments for 2 sections of STAT 201 and tutored in Help Lab
- Graduate Teaching Assistant, Marquette Univ. **September 2004 - May 2006**
- Teaching Assistant for the following courses :  
Finite Mathematics, Differential Equations and Statistical Inference
- Graduate Teaching Assistant, Iran University of Science and Technology(IUST)  
 - **January 2004 - May 2004**
- Teaching Assistant for “Differential Equations”
- Short Courses, IUST and Iranian National Commission for UNESCO **2000 - 2002**
- Delivering short courses on Networking, Internet and Programming Languages such as Visual Basic, Pascal and C++.

#### RESEARCH EXPERIENCE

- IAMCS-KAUST Graduate Fellow, IAMCS-KAUST **June 2011 - Present**
- Internship, MD Anderson Cancer Center, **May 2008 - August 2008**  
 - **May 2009 - August 2009**
- Modelling the Expression Indexes for Multiple-probe Microarray using Transformation
- Graduate Research Assistant, TAMU **January 2009 - December 2009**

#### PRESENTATIONS

- “Statistical Modeling for Oligonucleotide Arrays Using PCA with Likelihood Approach”, Joint Statistical Meetings; Washington, DC, August 2009
- “Skewed Probabilistic Principal Component Analysis”, Department of Statistics Skew Tea Meetings, Texas A&M University, College Station, TX, March 2010
- “Nonlinear PCA Based on Data Transformation”, Joint Statistical Meetings; Vancouver, BC, August 2010

- “Analyzing Multiple-probe Microarray: Estimation and Application of Gene Expression Indexes”, The 3rd Annual IAMCS Spring Symposium; Colleg Station, TX, May 2011
- “Integrating Data Transformation in Principal Components Analysis”, ICSA Applied Statistics Symposium, New York City, NY, June 2011

WORK

EXPERIENCE  
(PART TIME)

**Iranian National Commission for Unesco**, Tehran, IRAN

- Network Administrator **January 2002 - Dec. 2003**

**Iran University of Science & Technology**, Tehran, IRAN

- Network Administrator **January 2000 - Dec. 2001**

SERVICE

Editorial Assistant of **Journal of Statistics, Applied & Theory**  
**June 2005 - Present**

COMPUTER SKILLS

- Matlab, Mathematica, Maple, SAS, R
- $\text{T}_{\text{E}}\text{X}$ ,  $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$ , Microsoft Office
- J2SE(Java 2 Standard Edition) : Applet, Socket, Thread, RMI
- J2EE(Java 2 Enterprise Edition) : JDBC, JNDI, Servlet, JSP, EJB, JavaMail,
- .NET, SQL, ASP, PHP
- C++, Pascal, JavaScript, VBScript
- XML, DHTML,
- Network Security, TCP/IP

ORGANIZATIONS

- American Statistical Association member
- Institute of Mathematical Statistics member