

# MORGAN C. WANG

## VITA

October 30, 2015

### PERSONAL INFORMATION:

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### ACADEMIC BACKGROUND:

B.S., Marine Management, National Chiao-Tung University, 1977  
M.S., Math/Computer Science, Mankato State University, 1986  
Ph.D., Statistics, Iowa State University, 1991

### ACADEMIC DISTINCTIONS AND HONORS:

Mu Sigma Rho Honor Society, 1987  
Gamma Sigma Delta Honor Society, 1990  
Second Prize in Master of Innovation II Programming Contest, 1990  
First Prize in Student Data Analysis Competition, 1990 Annual American Statistical Association Iowa Chapter Meeting  
First Prize in Student Paper Presentation Competition, 1991 Annual American Statistical Association Iowa Chapter Meeting  
Teaching Incentive Award, University of Central Florida, 1996 and 2002  
First Prize in Information Visualization Contest, 24<sup>th</sup> SAS User Group International Conference, 2000  
First Prize in KDD CUP, Tenth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, August 2004  
Best Conference Paper Award, The International Multi Conference on Engineering and Technological Innovation, May 2008.  
Winner in 2011 SAS Shoot-Out Data Mining Contest, Analytics Conference, October 2011  
Winner in 2012 SAS Shoot-Out Data Mining Contest, Analytics Conference, October 2012

## TEACHING:

### (A) COURSES TAUGHT AT UNIVERSITY OF CENTRAL FLORIDA:

- 1991-92: Statistical Methods I (Fall) – STA 3023 (Undergraduate);  
Statistical Graphics (Fall) – STA 3096 (Undergraduate);  
Statistical Methods I (Spring) – STA 3023 (Undergraduate);  
Statistical Computing (Spring) – STA 6106 (Graduate);
- 1992-93: Statistical Methods I (Summer) – STA 3023 (Undergraduate);  
Statistical Methods I (Fall) – STA 3023 (Undergraduate);  
Nonparametric Statistics (Spring) – STA 6507 (Graduate);  
Honor Statistics Methods I (Spring) – STA 3023 (Undergraduate);
- 1993-94: Statistical Methods I (Summer) – STA 3023 (Undergraduate);  
Statistical Computing (Fall) – STA 6106 (Graduate);  
Statistics Graphics (Fall) – STA 3096 (Undergraduate);  
Statistical Methods I (Spring) – STA 3023 (Undergraduate);  
Linear Models (Spring) – STA 6246 (Graduate);
- 1994-95: Statistical Methods I (Summer) – STA 3023 (Undergraduate);  
Statistical Computing (Fall) – STA 6106 (Graduate);  
Statistical Methods I (Fall) – STA 3023 (Undergraduate);  
Statistical Methods I (Spring) – STA 3023 (Undergraduate);  
Linear Models (Spring) – STA 6246 (Graduate);
- 1995-96: Statistical Methods I (Summer) – STA 3023 (Undergraduate);  
Statistical Computing (Fall) – STA 6106 (Graduate);  
Nonparametric Statistics (Fall) – STA 6507 (Graduate);  
Statistical Methods I (Spring) – STA 3023 (Undergraduate);  
Nonparametric Statistical Methods (Spring) – STA 4502 (Undergraduate);
- 1996-97: Statistical Methods I (Summer) – STA 3023 (Undergraduate);  
Statistical Methods I (Summer) – STA 3023 (Undergraduate);  
Statistical Computing (Fall) – STA 6106 (Graduate);  
Nonparametric Statistical Methods (Fall) – STA 6507 (Graduate);  
Linear Models (Spring) – STA 6246 (Graduate);  
Statistical Methods (Spring) – STA 3023 (Web Based Undergraduate);
- 1997-98: Statistical Methods I (Summer) – STA 3023 (Undergraduate);  
Statistical Methods II (Summer) – STA 4163 (Undergraduate);  
Statistical Computing (Fall) – STA 6106 (Graduate);  
Statistical Methods II (Fall) – STA 4163 (Web Based Undergraduate).
- 1998-99: Statistics Methods II (Summer) – STA 4163 (Undergraduate)

- Statistical Computing (Fall) – STA 6106 (Graduate)  
 Statistical Methods II (Fall) – STA 4163 (Web Based Undergraduate)  
 Linear Models (Spring) – STA 6026 (Graduate)
- 1999-00      Statistics Methods I (Summer) – STA 2023 (Undergraduate)  
 Computer Processing of Statistical Data (Fall) – STA 4102 (Undergraduate)  
 Statistical Computing I (Fall) – STA 6106 (Graduate)  
 Statistical Methods I (Spring) – STA 2023 (Web Based Undergraduate)  
 Nonparametric Statistical Methods (Spring) – STA 6507 (Graduate)
- 2000-01      Statistical Methods I (Summer) – STA 2023 (Web Based Undergraduate)  
 Advanced Computer Processing Data (Fall) – STA 5103 (Graduate)  
 Data Mining Methodology I (Spring) – STA 5937 (Graduate)  
 Statistical Computing I (Spring) – STA 6106 (Graduate)
- 2001-02      Statistical Methods II (Summer) – STA 4163 (Web-Enhanced Undergraduate)  
 Computer Processing of Statistical Data (Fall) – STA 4102 (Undergraduate)  
 Advanced Computer Processing Data (Fall) – STA 5103 (Graduate)  
 Data Mining Methodology I (Spring) – STA 5703 (Graduate)  
 Statistical Computing I (Spring) – STA 6106 (Graduate)
- 2002-03      Data Mining Methods II (Summer) – STA 6704 (Graduate)  
 Computer Processing of Statistical Data (Fall) – STA 4102 (Undergraduate)  
 Advanced Computer Processing Data (Fall) – STA 5103 (Graduate)  
 Data Preparation (Spring) – STA 6938 (Graduate)  
 Linear Models (Spring) – STA 6246 (Graduate)
- 2003-04      Statistical Methods I (Summer) – STA 2023 (Undergraduate)  
 Advanced Computer Processing Data (Fall) – STA 5103 (Graduate)  
 Data Mining Methodology I (Fall) – STA 5703 (Graduate)  
 Data Preparation (Spring) – STA 6704 (Graduate)
- 2004-05      Statistical Methods I (Summer) – STA 2014 (Undergraduate)  
 Advanced Computer Processing Data (Fall) – STA 5103 (Graduate)  
 Statistical Methods II (Fall) – STA 4163 (Undergraduate)  
 Data Preparation (Spring) – STA 6714 (Graduate)  
 Statistical Methods II (Spring) – STA 4163 (Undergraduate)
- 2005-06      Statistical Methods I (Summer) – STA 2023 (Undergraduate)  
 Advanced Computer Processing Data (Fall) – STA 5103 (Graduate)  
 Statistical Analysis (Fall) – STA 5206 (Graduate)  
 Statistical Methods II (Spring) – STA 4163 (Undergraduate)  
 Data Preparation (Spring) – STA 6714 (Graduate)
- 2006-07      Sabbatical

- 2007-08      Advanced Computer Processing Data (Fall) – STA 5103 (Graduate)  
 Data Mining Methodology I (Fall) – STA 5703 (Graduate)  
 Statistical Methods II (Spring) – STA 4163 (Undergraduate)  
 Data Mining Methodology III (Spring) STA 6705 (Graduate)  
 BUSINESS ANALYTICS & INTELLIGENCE SESSION VI (GEB 6908)  
 – EMBA
- 2008-09      Statistical Methods II (Fall) – STA 4163 (Undergraduate)  
 Advanced Computer Processing Data (Fall) – STA 5103 (Graduate)  
 Data Preparation (Spring) - STA 6714 (Graduate)  
 Data Mining Methodology II (Spring) - STA 6704 (Graduate)  
 Statistical Methods I (Summer) – STA 2023 (Undergraduate)
- 2009-10      Advanced Computer Processing Data (Fall) – STA 5103 (Graduate)  
 Statistical Methods I (Fall) - STA 2023 (Undergraduate - Large Class)  
 Data Preparation (Spring) - STA 6714 (Graduate)  
 Data Mining Methodology II (Spring) - STA 6704 (Graduate)  
 Statistical Methods I (Summer) – STA 2023 (Undergraduate)
- 2010-11      Advanced Computer Processing Data (Fall) – STA 5103 (Graduate)  
 Statistical Analysis (Fall) – STA 5206 (Graduate)  
 Data Preparation (Spring) - STA 6714 (Graduate)  
 Data Mining Methodology II (Spring) - STA 6704 (Graduate)  
 Statistical Methods II (Summer) – STA 2023 (Undergraduate)
- 2011-12      Advanced Computer Processing Data (Fall) – STA 5103 (Graduate)  
 Data Mining Methodology I (Fall) - STA 5703 (Graduate)  
 Data Preparation (Spring) - STA 6714 (Graduate)
- 2012-13      Advanced Computer Processing Data (Fall) – STA 5103 (Graduate)  
 Statistical Analysis (Fall) – STA 5206 (Graduate)  
 Data Preparation (Spring) - STA 6714 (Graduate)  
 Data Mining Methodology II (Spring) - STA 6704 (Graduate)
- 2013-14      Advanced Computer Processing Data (Fall) – STA 5103 (Graduate)  
 Statistical Analysis (Fall) – STA 5206 (Graduate)  
 Data Preparation (Spring) - STA 6714 (Graduate)  
 Data Mining Methodology II (Spring) - STA 6704 (Graduate)

**(B) NEW COURSES PREPARATION/DEVELOPED:**

- 1991-92: Statistical Methods I (STA 3023)  
Statistical Graphics (STA 3096) – Developed this innovative course as part of the deliberation for NSF grant USE-8951299. The course required the operation and maintenance of a Graphical Laboratory and the development of instructional material covering principles of graphical construction, graphical perception, graphical data displays, and interactive data analysis.  
Statistical Computing (STA 6106) – Update this key course of our Master of Statistical Computing Program to include object-oriented programming and computational intensive statistical methods.
- 1992-93: Nonparametric Statistics (STA 6537)
- 1993-94: Linear Models (STA 6246)
- 1995-96 Nonparametric Statistical Methods (STA 4502)
- Web Based Statistical Methods I (STA 2023) – The development of this course was supported by the Academic Affairs under the Distance Learning Project.
- 1997-98 Statistical Computing (STA 6106) – Update this key course of our Master of Statistical Computing Program to include Interactive Data Accessing, Data Presentation, and Computing Methods on the World Wide Web Environment.
- 1998-99 Web Based Statistical Methods II (STA 4163) – The development of this course was supported by the Academic Affairs under the Distance Learning Project and the College of Arts and Sciences under Dean’s Initiative Project.
- Computer Processing Statistical Data (STA 4102) – The development of this course was supported by the Academic Affairs and SAS Institute.
- 2000-01 Advanced Computer Processing Statistical Data (STA 5103) – The development of this course was supported by the Academic Affairs, SAS Institute, and Sodexho Services.  
Data Mining Methodology I (STA 5703) - The development of this course was supported by the Academic Affairs, SAS Institute, and Sodexho Services
- 2001-02 Statistical Computing (STA 6106) – Update this key course for the new Master of Data Mining Track to include Data Preparation, Data Integration, and Missing Value Imputation.
- 2002-03 Data Mining Methodology II (STA 6704) – The development of this course was supported by the Academic Affairs, SAS Institute, and Sodexho Services

- Data Preparation (STA 6714) – This course is one of the key courses for data mining track
- 2005-06 Statistical Analysis (STA 5206) – This course is one of the key courses for the newly developed Computer Forensics Master Program.
- 2007-08 Data Mining Methodology III (STA 6705) – The development of this course was supported by the Academic Affairs, SAS Institute, and Sodexo Services Business Analytics (GEB 6908) – This is a course joint taught by faculty in statistics and business school. The target audients are from working professional from analytical fields. This course introduced the current trend on statistical data mining to this group of PMBA students.
- 2009-10 Statistical Methods I (STA 2023) - This is a large size GEP course with more than 360 students in the classroom.

**(C) LABORATORY DEVELOPMENT:**

- 1991-94: Set up, Maintain, and Administrate the Graphical Laboratory for Undergraduate and Graduate Students.
- 1994-96: Set up, Maintain, and Administrate the Departmental Network for Graduate Teaching and Research.
- 1999-Present: Set up, Maintain, and Administrate the Departmental Laboratory for Undergraduate and Graduate Teaching and Research
- 1999-Present Set up, Maintain, and Administrate the Data Mining Laboratory for Data Mining Program

**(D) RESEARCH REPORTS SUPERVISED:**

- 1993-94: Frank C. Lieble: “Vote-Counting Method to Obtain an Estimate and Confidence Interval for the Population Correlation Coefficient Using SAS/AF®.”  
 Danhua Zheng: “Missing Values Estimation in Meta-Analysis for Sample Correlation Coefficient.”  
 Yi Zhong: “An Object Oriented Computer Environment for Self-Validating Computation Using C++.”
- 1999-00: Shiumin Guo: “On the Development of an Online Survey and Data Analysis System through the World Wide Web”

- 2001-02: Xin Luo: “Analyzing Student Rating Data with Decision Tree”
- 2003-2005: David Bogel (Ph. D.): “Developing Tree Based Boosting Data Mining Algorithm”.
- 2003-2006: Bruce Caulkins (Ph. D.): Dissertation title: “High Performance Network Security System”.
- 2005-2006: Weiqun Ding (Ph. D.): “Data Mining Application in Higher Education”.
- 2005-2008: Muazzam Siddiqui (Ph. D.): Dissertation title: “Malicious Software Detection and Binary Code Analysis”.
- 2009-2010: Julie Pepe (Ph. D.) "Student Perception of General Education Program Courses".
- 2007-Present: Sheila Donelan (Ph. D.) “Data Mining System for Medical Informatics”.

**(E) INDEPENDENT STUDIES:**

- 1992-93: Jill Digraviana, “Statistical Computing Using SAS/IML®.”  
Richard Tamburro, “Dot-Chart a New Way to Present Findings in Education Research.”
- 1993-94: Frank C. Lieble, “Vote-Counting Method to Obtain an Estimate and Confidence Interval for the Population Correlation Coefficient Using SAS/AF®.”  
Yi Zhong, “An Object Oriented Computer Environment for Self-Validating Computation Using C++.”  
Danhua Zheng, “Missing Values Estimation in Meta-Analysis for Sample Correlation Coefficient.”
- 1994-95: David Boulware, “An Object-Oriented Designs of Experiments Environment in S-Plus.”  
Jiancheng Wang, “SAS Graph for Meta Analysis”.
- 1995-96: Jessie Chen, “Meta-Analysis in Research of Multiple Warning Messages.”
- 1996-97: Laura Pollard, “Analyze Multiple Warning Messages with the SAS System.”
- 1997-98: Allison Sloan, “Data Mining System for Corrosion Pitting Data Analysis”  
Maria Franco, “Developing a Menu Driven Data Analysis, Data Entry, and Data Validation System with the SAS System”

- Matthew P. D. Angelo, "Traffic Prediction with the SAS System"
- 1998-99: Michael Webb, "Data Mining for Medical Information System in Florida Regional Hospital"  
Jack Klodzinski, "Data Mining System for Traffic Prediction on Highway I4 with the SAS System"
- 1999-00: Shumin Guo, "Data Management and Collection Strategy on the World Wide Web"  
Shumin Guo, "Data Presentation and Analysis Strategy on the World Wide Web"
- 2000-01: Strube Christopher, "Web Based Data Collection with the SAS/IntraNet Version 8"  
Evangeline Collado, "Online Data Collection and Analysis with the SAS/IntraNet Version 8"  
Karolina Pyda, "Online Data Collection and Analysis with the SAS/IntraNet Version 8"  
Zhenguo Fan, "Online Data Collection and Analysis with the SAS/IntraNet Version 8"
- 2001-02: Hatem Abou-Senna, "Data Mining – Decision Tree Methodology"  
Mengxi Li, "Online Data Collection and Analysis with the SAS/IntraNet Version 8"  
Kang Ying: "Online Data Collection and Analysis with the SAS/IntraNet Version 8"  
Xin Luo: "Online Data Collection and Analysis with the SAS/IntraNet Version 8"  
Tikisha McNally: "Graphical Data Presentation"  
Xin Luo: "Analyzing Student Rating Data with Decision Tree"
- 2003-04: Ting-Jung Kuo: "On-line Data Exploration System for Solid Rocket Buster"  
Jing Liang: "Maximum Likelihood Estimation System from Marginal Distribution to Estimate the Complete Distribution"
- 2004-05: Weiqun Ding: "Student Retention Modeling".  
Haiou Hou: "Special Olympics Demand Analysis".
- 2005-06 Jin Su: "Student Enrollment Analysis"  
Yi Zhang: "Student Retention Model II"  
Ziqin Yang: "Factor Analysis on Financial Stress Data"
- 2006-07 Li Liu: "Student Enrollment Analysis"  
Min Li: "Student Retention Model II"



- 2007-08 Muazzaum Siddiqui, Use Text Mining to Solve Malicious Software Detection Problem  
Muazzaum Siddiqui, Use Memory Base Reasoning Approach to Solve Malicious Software Detection Problem
- 2008-09 Daniel Jones, Use SAS to develop tools for variable clustering using rank order correlation  
Ezikeanyi Innocent, Mixed Effect Modeling
- 2010-11: Jun Han, Baiyun Chen, Puwei Chen, Zhixing Cheng, Junnan Miao, Zhang Lei, and Chun He, "SAS Data Mining Shot Out Competition M2011"
- 2011-12: Jianbin Zhu, Ruizhe Wang, Yuting Song, and Qi Shi, , "SAS Data Mining Shot Out Competition M2012"

**(F) ADVISORY COMMITTEES:**

- 1992-93: Joseph A. Yarid, Department of Civil and Environment Engineering, College of Engineering, Master of Science in Civil Engineering
- 1994-95: Yun Yue, Department of Electrical Engineering, College of Engineering, Ph.D. in Electrical Engineering
- 1995-96: Ayman A. Mohamed, Department of Civil and Environment Engineering, College of Engineering, Master of Science in Civil engineering
- 1996-97: Khan AlDeek, Department of Civil and Environment Engineering, College of Engineering, Ph.D. in Civil Engineering  
Mohammed Abdallah, Department of Civil and Environment Engineering, College of Engineering, M.S. in Civil Engineering
- 1997-98: Matthew P. D. Angelo, Department of Civil and Environment Engineering, College of Engineering, M. S. in Civil Engineering
- 1998-99: Yoonwhan Ahn, Department of Mechanical, Materials, and Aerospace Engineering, College of Engineering, Ph.D. in Mechanical Engineering  
Dissertation Title: An Extreme Value Probabilistic Theory of Fracture and Fatigue under Mixed-Mode.  
Tony Zhong, Department of Electric and Computer Engineering, College of Engineering, Ph.D. in Electric & Computer Engineering. Dissertation Title: Statistical Device Models from Worst Case Files and Loop Closure Data  
Chris Eliaz, Department of Communication Disorder, College of Health and Public Affairs, Master in Communication Disorder.
- 1999-00: Tony Zhong, Department of Electric and Computer Engineering, College of Engineering, Ph.D. in Electric & Computer Engineering. Dissertation Title: Statistical Device Models from Worst Case Files and Loop Closure Data  
Shih-Shen Chou – committee member, Department of Civil Engineering, College of Engineering, University of Central Florida (graduated at Fall 2001)

- Yoonwhan Ahn – committee member, Department of Mechanical and Aerospace Engineering, College of Engineering, University of Central Florida (graduated at summer of 1999)
- Tony Q. Zhang – committee member, Department of Electrical and Computer Engineering, College of Engineering, University of Central Florida (graduated at Fall 2001)
- 2000-01: Jessie Chen – committee member, Department of Psychology, College of Arts and Sciences, University of Central Florida (graduated at Fall 2000)
- Shih-Shen Chou – committee member, Department of Civil Engineering, College of Engineering, University of Central Florida (graduated at Summer 2001)
- Tony Q. Zhang – committee member, Department of Electrical and Computer Engineering, College of Engineering, University of Central Florida (graduated at Spring 2001)
- 2002-03: Roy Villafane – committee member, Department of Electrical and Computer Engineering, College of Engineering, University of Central Florida (graduated at Spring 2003)
- Kan Zhong – committee member, Department of Mechanical Engineering, College of Engineering, University of Central Florida (graduated at Spring 2003)
- 2004-05: Hatem Abou-Senna – committee member, Department of Civil Engineering, College of Engineering, University of Central Florida (graduated at Spring 2004)
- Ning Jiang – committee member, Department of Electrical and Computer Engineering, College of Engineering, University of Central Florida (graduated at Spring 2005)
- Khaled Salah Shaaban – committee member, Department of Civil Engineering, College of Engineering, University of Central Florida (anticipate to graduate at Spring 2005)
- 2005-06: Chuanzhao (John) Yu – committee member, Department of Civil Engineering, College of Engineering, University of Central Florida (graduated at Spring 2006)
- 2009-10: Jianyong Dai - committee member, School of Computer Science, College of Engineering, University of Central Florida (Graduate at Summer 2009)
- 2010-11: Lei Wu - committee member, School of Computer Science, College of Engineering, University of Central Florida
- Ping Wang - committee member, School of Computer Science, College of Engineering, University of Central Florida (Graduated at Fall 2010)
- Juan Hwang - committee member, School of Computer Science, College of Engineering, University of Central Florida
- Ruben Ramirez - committee member, School of Computer Science, College of Engineering, University of Central Florida

Fuyu Liu- committee member, School of Computer Science, College of Engineering, University of Central Florida

2011-2012 Ruben Ramirez - committee member, School of Computer Science, College of Engineering, University of Central Florida

Baber Aslam - committee member, School of Computer Science, College of Engineering, University of Central Florida

Shuyu Chen - committee member, School of Computer Science, College of Engineering, University of Central Florida

Huy Truong- committee member, School of Computer Science, College of Engineering, University of Central Florida

2014-2015 Jiangling Yin, committee member, School of Computer Science, College of Engineering, University of Central Florida

## RESEARCH :

### (A). PUBLICATIONS:

#### Refereed Book and Book Chapter:

**Morgan C. Wang** and Brad J. Bushman, “Integration Results through Meta-analytic Review Using SAS<sup>®</sup> Software”, SAS Institute, (1999).

Marcella Bush, Charles Dziuban, Patsy Moskal, and **Morgan C. Wang**, Chapter on “Student Success in Online Learning”, Issues in Higher Education, Edited by R. Nata, Page 1-14 (2005).

Brad J. Bushman and **Morgan C. Wang**, Chapter on “Vote-Counting Methods for Meta Analysis”, Handbook of Research Synthesis 2008 Edition, Edited by Harris Cooper and Larry V. Hedge, (2008).

**Morgan C. Wang**, Chuck Dziuban, Ida J. Cook, Patsy D. Moskal, Chapter on “Dr. Fox Rocks: Using Data Mining Techniques to Examine Student Ratings of Instruction “, Gold Standard(s) of Quality Research in Science Literacy: Science Education, Reading, Statistics, and Other Adventures in Science-Based Research (ISBN: 978-1-4020-8426-3), Edited by Larry D. Yore, Brian Hand, and Mack C. Shelley (2008).

#### Refereed Journal Articles:

**Morgan C. Wang** and William J. Kennedy, “Comparison of Algorithms for Bivariate Normal Probabilities Over a Rectangle Based on Self-Validating Result from Interval Analysis,” *Journal of Statistical Computation and Simulation*, vol. 37, pp. 13-25 (1990).

**Morgan C. Wang** and William J. Kennedy, “A Numerical Method for Accurately Approximating Multivariate Normal Probabilities,” *Computational Statistics and Data Analysis*, vol. 13, pp. 197-210 (1992).

**Morgan C. Wang** and Ned Silver, “A Microsoft FORTRAN 77 Program for Determining the Confidence Interval Around the Estimate of the Population Correlation Coefficient for the Vote-Counting Method,” *Educational and Psychological Measurement*, vol. 54, pp. 110-114 (1994).

**Morgan C. Wang** and William J. Kennedy, “Self-validating Computations of Probabilities and Percentiles for Selected Central and Non-Central Univariate Probability Functions,” *Journal of the American Statistical Association*, vol. 89, pp. 878-887 (1994).

Mary Ann Evans, Myrna Whigham, and **Morgan C. Wang**, "The Effect of a Role Model Project Upon the Attitudes of Ninth Grade Science Students," *Journal of Research in Science Teaching*, vol. 32, pp. 195-204 (1995).

Brad Bushman and **Morgan C. Wang**, "A Procedure for Combining Sample Correlation and Vote Counts to Obtain Estimate and Confidence Interval for the Population Correlation of Coefficient," *Psychological Bulletin*, vol. 117, pp. 530-546 (1995).

**Morgan C. Wang** and William J. Kennedy, "A Self-validating Numerical Method for Computation of Central and Non-Central F Probabilities and Percentiles," *Statistics and Computing*, vol. 5, pp. 155-163 (1995).

Brad J. Bushman and **Morgan C. Wang**, "A Procedure for Combining Sample Standardized Mean Differences and Vote Counts to Obtain an Estimates and a Confidence Interval for the Population Standardized Mean Difference," *Psychological Methods, Vol 1*, 66-80 (1996).

**Morgan C. Wang** and William J. Kennedy, "Numerical Methods for Use in Preparing High Quality Statistical Tables," *Statistics of Quality*, 333-342 (1997).

H. M. Al-Deek, P. D. Angelo, **Morgan C. Wang**, "Travel Time Prediction with Non-Linear Time Series," *ASCE Journal of Transportation Engineering*, Vol. 122, No. 6, 440-446. (1998)

**Morgan C. Wang** and Brad J. Bushman, "Using Normal Quantile Plots in Meta-Analysis," *Psychological Methods, Psychological Methods*, Vol. 3, No. 1, 46-54 (1998).

Jennifer E. Irvin, Clint A. Bowers, Michael E. Dunn, and **Morgan C. Wang**, "Efficacy of Relapse Prevention: A Meta-Analytic Review," *Journal of Consulting and Clinical Psychology*, Vol. 67, No. 4, 563-570 (1999).

P. D. Angelo, Al-Deek, and **Morgan C. Wang**, "Travel Time Prediction for Freeway Corridors," *Journal of Transportation Research Board*, No. 1676, pp 184-191 (1999).

Ahn Y., Nicholson, D. W., and **Morgan C. Wang**, "Inverse method for identifying the underlying crack distribution in plates with random strengths," *Journal of ACTA MECHANICA*, No. 144 (3-4), pp 137-154 (2000).

**Morgan C. Wang**, Charles D. Dziuban, and Patsy D. Moskal, "A Web-based Survey System for Distributed Learning Impact Evaluation" *The Internet and Higher Education*, Vol. 2, No. 2, 211-220 (2001).

Vogel, D. Gottshalk, E., & **Wang, Morgan C.**, "Anti-matter detection: Particle Physics Model for KDD Cup 2004", *SIGKDD Explorations*, 6 (2), 109-112 (2004).

Vogel, D. Gottshalk, E., & **Wang, Morgan C.** "Protein Matching With Custom Neural Network Objective Functions," *SIGKDD Explorations*, 6 (2), 125-127 (2004).

Brad J. Bushman, **Morgan C. Wang**, and Craig A. Anderson (2005), "Assaults and Temperature in Minneapolis Reexamined", *Journal of Personality and Social Psychology* Vol. 89, No. 1, 62-66.

Brad J. Bushman, **Morgan C. Wang**, and Craig A. Anderson (2005), "Is the Curve Relating Temperature to Aggression Linear or Curvilinear? A Response to Bell (2005) and to Cohn and Rotton (2005)", *Journal of Personality and Social Psychology*, Vol. 89, No. 1, 74-77.

Xiaogang Su, **Morgan C. Wang**, and Juanjuan Fan (2005), "Maximum Likelihood Regression Tree," *Journal of Computational and Graphical Statistics*, Vol. 13, No. 3, 586-598.

Yan, Xin, **Wang, Morgan** and Su, Xiao-Gang (2007), "Test for Consistency of Non-Inferiority from Multiple Non-inferiority Trials" *Journal of Biopharmaceutical Statistics*, 17, 1-14.

Aaron Liberman, Tom Clarke, and **Morgan C. Wang** (2007), "Epidemic Simulation for Syndrome Surveillance" *The Health Care Manager*. 2007 Oct-Dec;26(4):297-302.

Brad, J. Bushman, **Morgan C. Wang**, and Craig A. Anderson (2008). "Is there a linear relationship between hot temperatures and violent crime", *International Society for Research on Aggression*, Budapest, Hungary.

M. Siddiqui, **Morgan C. Wang**, and J. Lee. "Detecting Internet Worms Using Data Mining Techniques", *Journal on Systemics, Cybernetics and Informatics*, Vol. 6, No. 6, pp. 48-53, 2009

Xiaogang Su, Chih-Ling Tsai and **Morgan C. Wang** (2009), "Tree-structured model diagnostics for linear regression", *Machine Learning* (DOI 10.1007/s10994-008-5080-8).

Michael Manocchia, Alyssa Dorceus, and **Morgan C. Wang** (2012), "Health consumer susceptibility to medical care fraud: an exploratory analysis", *Int. J. Public Policy*, Vol. 8, Nos. 1/2/3, 2012.

Julie W. Pepe and **Morgan C. Wang** (2012), "What instructor qualities do students reward (ID 10929)", *College Students Journal*.

Refereed Proceedings:

Morgan C. Wang, Kuo-Chi Lin, and William J. Kennedy, "Object Oriented Computation Methods for Selected Statistical Distribution Functions in Quality Assurance," *Proceedings of International Workshop on Applications of Interval Computation*, El Paso, Texas, 2/24/95.

Randy Raley and Morgan C. Wang "Data Warehouse & Data mining Technologies for Airframe Corrosion Control," *Proceeding of Corrosion99 NACE* (April 1999).

Lijia Guo, and Morgan C. Wang, "Data Mining Techniques for Mortality at Advanced Age", for Proceedings of Symposium Living to 100 and Beyond: Survival at Advanced Ages 2002, (Lake Buena Vista, Florida, 2002).

David S. Vogel and Morgan C. Wang, "1-Dimensional Splines as Building Blocks for Improving Accuracy of Risk Outcomes Models," Proceedings of the Tenth ACM SIGKDD Conference on Knowledge Discovery and Data Mining (August 2004).

Bruce D. Caulkins, Joochan Lee, and Morgan C. Wang (2005), "Packet – vs. Session-based Modeling for Intrusion Detection System," Proceedings for International Conference on Information Technology (ITCC), Las Vegas, April 2005.

Bruce D. Caulkins, Joochan Lee, and Morgan C. Wang (2005), "Dynamic Data Mining Technique for Intrusion Detection Systems," Proceedings for ACM Southeast Conference to be held at Kennesaw State University in Kennesaw, GA, March 18-20, 2005.

Jianyong Dai, Joochan Lee, and Morgan C. Wang (2005) "Analytical Modeling of Data Mining Process Based on Distributed Tuple Space" to International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA 05).

Jianyong Dai, Joochan Lee, and Morgan C. Wang (2005) "Efficient Parallel Data Mining for Massive Datasets: Parallel Random Forests Classifier" to International Conference on Parallel and Distributed Processing Techniques and Applications (MNCI 05).

Bruce D. Caulkins, Joochan Lee, and Morgan C. Wang (2006), "Bootstrapping Methodology for the Session-Based Anomaly Notification Detector (SAND)," Proceedings for International Conference on Information Technology (ACMSE), Las Vegas, April 2006.

Muazzam Siddiqui, Joochan Lee, and Morgan C. Wang (2007), "Using Data Mining Techniques to Extract Instruction Sequences for Malware Detection", *M2007 Data Mining Conference*, 2007.

M. Siddiqui, Morgan C. Wang, and J. Lee. "Detecting Trojans Using Data Mining Techniques", In Proceedings of Communications in Computer and Information Science, Vol. 20, pp. 400-411, Springer, 2008.

Muazzam Siddiqui, Joochan Lee, and Morgan C. Wang (2008), "Data Mining Methods for Malware Detection Using Instruction Sequences", to International Conference on Artificial Intelligence and Applications (AIA 2008), Innsbruck, Austria.

Muazzam Siddiqui, Joochan Lee, and Morgan C. Wang (2008), "Data Mining Methods for Malware Detection using Instruction Sequences". In *Proceedings of Artificial Intelligence and Applications*, ACTA Press, 2008.

Muazzam Siddiqui, Joochan Lee, and Morgan C. Wang (2008), "Detecting Internet Worms Using Data Mining Techniques", In *Proceedings of the International Multi Conference on Engineering and Technological Innovation*, Vol. 1, pp. 129-134, 2008. (Best Conference Paper Award)

Muazzam Siddiqui, Joochan Lee, and Morgan C. Wang (2008), "A Survey of Data Mining Techniques for Malware Detection using File Features". *ACM Southeast (ACMSE 2008)*, 2008.

Muazzam Siddiqui, Joochan Lee, and Morgan C. Wang (2008), "Detecting Trojans Using Data Mining Techniques", *International Multi Topic Conference*, 2008.

Gau, Wu-Chyuan; France, Andrew; Moutinho, Maria E.; Smith, Carl D.; and Wang, Morgan C., "Predictive Modeling in Post-reform Marketplace" (2013). *Transactions of the International Conference on Health Information Technology Advancement*. Paper 20.

Andy Huang and Wang, Morgan C. (2015, Accepted) *An Innovative Early Warning System using Time Series Clustering*, GCCCE 2015.

Andy Huang and Wang, Morgan C. (2015, Revision) Identifying At-Risk Students for Early Interventions? A Time-series Clustering Approach, *IEEE Transactions on Emerging Topics in Computing*.

#### Other Publications:

Morgan C. Wang and William J. Kennedy, "A Self-validating Method for Accurately Approximating Multivariate Normal Probabilities," *1990 Proceedings of the Statistical Computing Section of the American Statistical Association* (Anaheim: American Statistical Association, 1991), pp. 303-308.

Morgan C. Wang and William J. Kennedy, "Self-Validating Computation of Probabilities for Central and Non-Central Chi-Square Probability Functions," *1991 Proceedings of the Statistical Computing Section of the American Statistical Association* (Atlanta: American Statistical Association, 1991) – pp. 248-253.



Morgan C. Wang, "Self-Validating Computation of Non-Central F Distribution," *1992 Proceedings of the Statistical Computing Section of the American Statistical Association* (Boston: American Statistical Association, 1992) – pp. 51-55.

Morgan C. Wang, "Self-Validating Computations of Bivariate Normal Cumulative Distribution Functions," *Proceedings of the 24<sup>th</sup> Symposium on the Interface (College Station: Interface Foundation of North America, 1992)* – pp. 21-24.

Morgan C. Wang, "Self-Validating Computations for the Distribution of the Sample Correlation Coefficient," *1993 Proceedings of the Statistical Computing Section of the American Statistical Association* (San Francisco: American Statistical Association, 1993).

Richard Tamburro and Morgan C. Wang, "Dot-Chart a New Way to Present Findings in Educational Research," *1993 Proceedings of the Statistical Education Section of the American Statistical Association* (San Francisco: American Statistical Association, 1993).

Frank C. Lieble, III and Morgan C. Wang, "Vote-Counting Methods to Obtain an Estimate and Confidence Interval for the Population Correlation Coefficient Using SAS/AF," *Proceedings of the Nineteenth Annual SAS Users Group International Conference* (Dallas: SAS Users Group, 1994) – pp.838-843.

Paul N. Somerville and Morgan C. Wang, "Computation of Multivariate Normal Probabilities Over Convex Regions," *1994 Proceedings of the 26<sup>th</sup> Symposium on the Interface* (Research Triangle Park: Interface Foundation of North America, 1994) – pp. 229-231.

Morgan C. Wang, "An Object Oriented Computing Environment for Self-Validating Computing," *1994 Proceedings of the Statistical Computing Section of the American Statistical Association* (Toronto: American Statistical Association, 1994).

Morgan C. Wang, "An On-line Analytical System for Corrosion Pittings Pattern Analysis for Solid Rocket Boosters," *Proceedings on 1<sup>st</sup> Annual Partners in Education and Research Conference 98* – (Cocoa Beach,, Florida: NASA Kennedy Space Center, 1998)

Morgan C. Wang, "The On-Line Survey System for Distance Learning Education at the University of Central Florida," *Proceedings of WebNet 98 – World Conference of the WWW, Internet & Intranet* (Orlando: Association for the Advancement of Computing in Education, 1998).

Morgan C. Wang, "Data Mart Analysis of On-Line Course Evaluation Data," *Proceeding of EDUCON 98*.

Morgan C. Wang, "An On-Line Analytical System for Corrosion Pittings Analysis for Solid Rocket Booster with the SAS system," for *Proceeding of SAS User Group International 1999*, (Miami Beach, Florida, 1999)

Morgan C. Wang, Charles Dziuban, and Joel Hartman “A Web Based Survey System for Distributed Learning Impact Evaluation with the SAS System” for *Proceeding of SAS User Group International 2000*, (Indianapolis, Indiana, 2000).

Morgan C. Wang, Mori Jameshidian, and Ying Zhang “On the Development of Data Mining Certificate Program at University of Central with the SAS System” for *Proceeding of SAS User Group International 2001*, (Long Beach, California, 2001)

Donna Baumbach, Morgan C. Wang, and Lea Witta (2002) “Florida Library Media Survey – 2002 (First Findings),” *Florida Media Quarterly*, Fall 2002, Volume 28, No. 1.

Donna Baumbach, Morgan C. Wang, and Lea Witta (2003) “Florida Library Media Survey – 2002 (Second Findings),” *Florida Media Quarterly*, Winter 2003, Volume 28, No. 2.

**(B) MANUSCRIPTS SUBMITTED and IN PROCESS:**

Morgan C. Wang, Charles D. Dziuban, and Ida Cook (submitted), “Excellent or Poor College Instruction: Students’ Perspective,” *Journal of Research in College Teaching*.

Xiaogang Su, Chih-Ling Tsai, and Morgan C. Wang (submitted), “The Hybrid Classifier of Logistic Regression and Trees,” *Journal of Computational and Graphical Statistics*.

**(C) WORKSHOPS ATTENDED:**

Visualizing Multidimensional Data, Presented by Richard A. Becker, William S. Cleveland, William M. Shyu, and Allan R. Wilks in 1991 Joint Statistical Meetings, Atlanta, Georgia.

Design for Data Visualization, Presented by Edward Tufte in 1992 Interface of Computer Science and Statistics, College Station, Texas.

Statistical Computing and Dynamic Graphics Using Lisp-Stat, Presented by Luke Tierney in 1992 Joint Statistical Meeting, Boston, Massachusetts.

SAS Training Seminar on Data Mining Methodologies (Half Days), in 2000, SUGI 25 International Conference

An Overview and Examination of Data Mining Seminar (1 Days), in 2000, The Nineteenth Annual Applied Statistics Workshop

SAS Training Course on Advanced Web Publication Tools (3 Days), May 2000

SAS Training Course on Logistic Regression (3 Days), September 2000

SAS Training Course on Decision Tree Modeling (2 Days), October 2000

SAS Training Course on Neural Network Modeling (3 Days), November 2000

SAS Training Course on Data Mining Primer (2 Days), September 2000

UCF Collaboration Classroom Series (5 2-Hour sessions), March and April, 2001

SAS Web Mining Techniques (2 Days), October 2001.

Survive Data Mining (3 Days), August 2003.

SAS Training Course on Advance Data Mining (5 Days), August 2006

**(D) GRANTS EXPERIENCE:**

Co-principal Investigator (with Lorrie Hoffman and Paul Somerville) on National Science Foundation Equipment Grant (1989) USE-8951299 for “Statistical Graphics Laboratory Equipment” (\$96,961).

Principal Investigator on University of Central Florida In House Grant (1993) for “Self-Validating Numerical Method” (\$4495).

Principal Investigator on University of Central Florida Instruction Development Grant (1993) for “Statistics Graphics” (\$1824).

Principal Investigator on American Statistical Association Travel Grant (1993) for “Writing Workshop” (\$1248).

Co-principal Investigator (with Mark E. Johnson and David Nickerson) on National Science Foundation Equipment Grant (1993) for “Computing Equipment” (\$40,895).

Co-Principal Investigator (with Mark E. Johnson) on Dean’s Initiative (1995) for “Revised the Curriculum of an Introductory Statistical course with State of the Art Computing Equipment and Software Packages” (\$5000).

Principal Investigator on Distance Learning Project (1996) for “STA 3023 on the Web” (\$4,500).

Principal Investigator on Dean’s Initiative (1997) for “Web course of STA 4163” (\$8,500).

Principal Investigator on Florida Space Grant Consortium (1998) for “An Interactive Menu Driven System for Trending Analysis on Corrosion Pitting Data of Rocket Pat” (\$8,000).

Principal Investigator on Florida Space Grant Consortium (1998) for “A Data Warehouse Project for Corrosion Control” (\$7,000).

Principal Investigator on University of Central Florida Special Grant (1999-2000) for “Assessment of the Student Perception of Instructor Form” (\$20,000)

Principal investigator on I4 Match Funds Application: Phrase III (1999-2000) on “A Data Mining System for solid Rocket Booster Program” (\$10,000).

Principal Investigator (with James Schott) on Sodexo Marriott Fellowship Program (2000-2001) for “Working Fellowship Program for Second Year Graduate Students” (\$25,200 - \$37,800).

Principal Investigator (with Mori Jamshidian) on Classroom Improvement Grant from Provost for Information and Technology (2000-2001) for “Upgrade Data Mining Laboratory” (\$14,000)

Principal Investigator (with Mori Jamshidian) on Special Grant from Sodexo-Marriott International (2000-2001) for “A Web-Based Data Collection System for Sodexo-Marriott” (\$10,000)

Principal investigator (with Mori Jamshidian) on I4 Match Funds Application: Phrase V (2000-2001) for “A Web-Based Data Collection System for Sodexo-Marriott” (\$10,000)

Principal Investigator on Florida space Grant Consortium (2000-2001) for “Pilot Project on Data Mining System for Rocket Booster Maintenance Data” (\$6,000)

Principal Investigator (with Chuck Dziuban) on University of Central Florida Special Grant (2000-2001) for “Assessment of the Student Perception of Instructor Form Phase II (continued)” (\$15,000)

Co-Principal Investigator (with Haitham Al-Deek and Sherif Ishak) on Florida Department of Transportation (2000-2003) for “The Impact of Real-Time Predictive Traffic Information on Travelers Behavior in the I4 Corridor” (\$110,000)

Co-Principal Investigator (with Haitham Al-Deek and Sherif Ishak) on CATSS Match Phase III (2000-2003) for “Real-Time Predictive Traffic Information on Travelers Behavior in the I4 Corridor “ (\$110,000).

Principal Investigator (with Ying Zhang and Mori Jamshidian) on Sodexo and I4 Match Funds Application: Phrase VI (2001-2003) for “Developing Intelligent Decision Models with Data Mining Technology to Enhance the Competition Edge” (Sodexo, \$120,000 and UCF \$60,000).

Principal Investigator on United Space Alliance Research Grant (2001 – 2002) for “Data Warehouse & Data Mining Techniques for Airframe Corrosion Control – Phase I” (\$20,000).

Principal Investigator on United Space Alliance Research Grant (2002 – 2003) for “Data Warehouse & Data Mining Techniques for Airframe Corrosion Control – Phase II” (\$40,000).

Principal Investigator on I4 Match Funds Application: Phrase VII (2003-2004) for “Data Warehouse & Data Mining Techniques for Airframe Corrosion Control – Phase II” (UCF \$33,000).

Principle Investigator (with Ying Zhang, Xiaogang Su, Hauxin You, and Dave Nickerson) on “SAS Campus Innovative Grant” (2002-2003) for “Developing Intelligent Data Collection System.” (\$68,000).

Principal Investigator on I4 Match Funds Application: Phrase VIII (2003-2005) for “Data Warehouse & Data Mining Techniques for Airframe Corrosion Control – Phase II” (UCF \$42,000 and Sodexho \$63,000).

Co-Principal Investigator on Florida Hospital (2003-2004) “Closing the Gap” Project (Statistical Portion: \$4,500).

Co-Principal Investigator (with Xiaogang Su and Huaxin You) on Disney CRM Working Internship, (2004-2006), Walt Disney World (\$44,800 Annually).

Co-Principal Investigator (with Thomas L. Clarke, John P. Kincaid, and Aaron Liberman) on “Florida Epidemiological Simulation Testbed) (2006-2007) from University of South Florida (Statistical Portion: \$33,525)

Principal Investigator on “Student Retention Modeling” (2006-2008) from Student Development and Enrollment Services, University of Central Florida (\$20,000)

Principal Investigator on “Graduate Student Financial Behavior Modeling” (2006-2008) from Graduate Study, University of Central Florida (\$18,000)

Principal Investigator on "Text Mining Application for Next Generation Space Shuttle Engineering", (2007-2008), NASA (\$60,000).

Principal Investigator on “Student Internship Program with Sodexho Services”, (2000 to 2009), Sodexho Services (\$50,000 Annually)

Principal Investigator on "Data Quality Issues for Modeling Health Informatics" (2010-11), BCBSFL (\$40,065)

Principal Investigator on “Bladder Tumor Study Data Collection and Analysis” (2010-2013), MD Anderson Cancer Center (\$51,000)

Principal Investigator on "Issues of Risk Assessment in Health Care Reform" (5/1/2011 to 4/30/2012), BlueCross & BlueShield of Florida (\$65,000 through JISC)

Principal Investigator on “An Effective Way of Using Census Data & UCF Foundation data to Enhance Fundraising Activity” (2011-2012), University of Central Florida Foundation (\$30,000 annually)

Principal Investigator on "Issues of Risk Assessment in Health Care Reform" (5/1/2012 to 12/30/2013), BlueCross & BlueShield of Florida (\$65,000 through JISC)

Principal Investigator on “Sodexo Working Internship Program”, (8/19/2013 to present), Sodexo (\$24,375 - annually)

Principal Investigator on “Wyndham Working Internship Program”, (8/19/2013 to present), Wyndham (\$24,375 - annually)

Principal Investigator on “BD2K Center of Biomedical, Social, and Environmental Measurement”, (7/1/2014 to 6/30/2018), National Institutes of Health (\$12,000,000 – pending)

Principal Investigator on “Improvement Student Performance on On-line STEM Courses using Time Series Clustering”, (7/1/2014 to 6/30/2017), National Science Foundation (\$500,000 – Pending).

Principal Investigator on “An Innovative Early Warning System for Identifying At-Risk Students in Online Undergraduate Computing Courses”, (10/1/2014 to 9/30/2017), National Science Foundation (\$100,000 – Pending)

**(E) INVITED SEMINARS PRESENTED:**

“An Object Oriented Computing Environment for Self-Validating Computing,” for Joint Statistical Meetings in Toronto, August 1994, International

“Object Oriented Computation Methods for Selected Statistical Distribution Functions in Quality Assurance,” for Applications of Interval Computations International Workshop in El Paso, February 1995 (with Kuo-Chi Lin and William J. Kennedy), International

“Graphical Methods for Meta-Analysis,” Department of Psychology, Iowa State University, July 1996, International

“Interval Analysis and Applications in Statistical Computing,” for Society for Industrial and Applied Mathematics Annual Meetings in Kansas City, July 1996, International

“Data Mining – An Overview,” for 5<sup>th</sup> Iranian Statistician Conference, August 2000, International

“Two Weeks Lecture Series on Data Mining,” invited by Fudan University, Shanghai, China, May and June 2001, International

“Data Mining Techniques for Enhancing Business Intelligence,” invited by the National Chung-Shing University at Taipei, Taiwan, June 2001, International

“Improving Business Efficiency with Data Mining Techniques – A Case Study on the Leading Food Service Provider in North American,” invited by National Cheng-Kung University at Tainan, Taiwan, June 2001, International

”Information Discover with Trees,” invited by University of Florida, September 2001, Regional

”Information Discover with Decision Trees,” invited by Chinese University of Hong Kong, Hong Kong, May 2002, International

“Clustering – Unsupervised Data Mining Technique” and “Data Mining – An Over View,” invited by Baptist University of Hong Kong, May 2002, International

”Improving Business Efficiency with Data Mining Techniques – A Case Study on the Leading Food Service Provider in North American,” invited by Renmin University, Beijing China, May 2002, International

“Offline Networks Intrusion Detections with Data Mining Techniques – A Case Study on Identifying Suspicious Activity with TCPDUMP Packets,” invited by Peking University, Beijing, China, June 2002, International

”Decision Trees – Maximum Likelihood Approach,” invited by National Chiao-Tung University and Tsing Hua University, Hsinchu, Taiwan, November 13 2002, International.

”Decision Trees – Maximum Likelihood Approach,” invited by Academic Sinica, Taipei, Taiwan, November 14 2002, International.

“Information Discovery with Decision Trees,” invited by “Taipei Data Mining Conference 2002”, November 15, 2002, International.

“Distance Learning Education – Teaching Statistics On Line”, invited by INFORMS 2002 Annual Meeting, November 17, 2002, San Jose, CA, International.

”Decision Trees – Maximum Likelihood Approach,” invited by The Pennsylvania State University, University Park, Pennsylvania, September 18, 2003, International.

“Two Days Lecture Series on Data Mining,” invited by Tsinghua University, Beijing, China, December 2003, International

“Data Mining Techniques for Enhancing Business Intelligence,” invited by the National Chung Hsin University, Taiwan, December 2003, International.

“Data Mining 3 Day Short Course,” invited by Iowa SAS User Group, Des Moines, Iowa, March 2004, National.

“Data Mining 3 Week Short Course,” invited by Tsinghua University, Beijing, China, August 2004, International.

”Statistical Data Mining,” invited by The University of Iowa, Iowa City, Iowa, November 15, 2004, National.

”Statistical Data Mining,” invited by The University of South Florida, Tampa, Florida, December 15, 2004, National.

“Data Mining 3 Week Short Course,” invited by Tsinghua University, Beijing, China, January 2005, International

“Statistical Data Mining with Applications in Health Industry,” invited by Bluecross Blueshield, Jacksonville, Florida, March 3, 2005, Regional.

“Statistical Data Mining with Application in Fraud Detection,” invited by UCF Police Department, Orlando, Florida, March 9, 2005, Regional.

“Maximum Likelihood Regression Trees” invited by Iowa SAS User Group, Des Moines, Iowa, May 9, 2005, Regional.

“Information Discovery with Decision Trees” invited by Iowa SAS User Group, Des Moines, Iowa, May 9, 2005, Regional.

“Overcome the Challenge of On Demand Business with SAS/IntrNet and Data Mining” invited by Iowa SAS User Group, Des Moines, Iowa, May 9, 2005, Regional.

“Pre-conference Workshop: A Short Course on Data Mining”, invited by Quality & Productivity Research Conference of the American Statistical Association, Minneapolis, Minnesota, May 18-20, 2005, National.



“Using Data Mining Techniques to Predict Student Development and Retention”, invited by Conference on Interface between Statistics and Education, University of Victoria, British Columbia, Canada, October 26-30, 2005, International.

“Does Complex Model Technique Always Work Better?”, invited by Twelfth Annual International Conference on Statistics, Combinatorics, Mathematics and Applications, December 3-5, 2005, International.

“Data Mining Workshop”, invited by Bluecross & BlueShield of Florida, Jacksonville, Florida, September 20, 2005 to January 11, 2006, National.

“Increase “Return of Investment” Five Fold by using Data Mining Techniques on Mailing Campaign”, invited by CMU Research Cooperation, June 20, 2006.

“Maximum Likelihood Regression Trees”, invited by American Statistical Association Kansas Chapter, October 16, 2006.

“An Innovative Approach on Teaching Medical Professional Data Mining”, invited by DM 2006, October 22-24, 2006.

"Data Mining Techniques for Business Intelligence", invited by BCBSFL, November 11, 2006 to January 15, 2007 (15 day intensive training).

“Straw to Gold – Increase Customer Understanding and Improving Marketing ROI by Mining Enterprise Data”, invited by Blue Cross and Blue Shield Association 2007 Marketing, communication, Sales and National Programs Conference, April 23-24, 2007.

“Data Mining and Competing Analytics – Increase Customer Understanding and Improving Marketing ROI by Mining Enterprise Data”, invited by Blue Cross and Blue Shield of Florida, May 16, 2007.

“Data Mining 2 Week Short Course,” invited by Tshinghua University, Beijing, China, June 2007, International

“Data Mining - A Key Element of Business Intelligence”, invited by UCF ORBIT July Community Practice, July 26, 2007.

"Data Mining - An Overview", invited by Cleveland SAS User Group, May 2008.

"Business Intelligence and Data Mining", invited by Cleveland SAS User Group, May 2008.

"Marketing Analytics - A Case Study", invited by Cleveland SAS User Group, May 2008.

"Panel discussion: Teaching Data Mining to Graduate Students and Professionals via Online and Offline Delivery Methods: Opportunities and Challenges", Invited by M2008 Data Mining Conference, Las Vegas, October 27-28, 2008.

"Use Regression and Neural Network in Enterprise Miner to Detect Unwanted Customers", 5th Annual Predictive Modeling for Underwriting, Orlando, January 28-30, 2009.

"5 Day Training on Data Mining Techniques for Financial Management", Invited by Well Fargo Bank, March 9 - 13, 2009.

"Use Predictive Modeling to Retain and Engage Your Most Valuable Members", Invited by The National Predictive Modeling Congress, January 28-29, 2010. (Orlando Florida)

"Identifying the Most At-Risk First Time in College Students using Data Mining Techniques", Invited by Consortium for Students Retention Data Exchange Webinar, February 10, 2010. (Orlando, Florida)

"5 Day Training on Data Mining Techniques for Financial Management", Invited by Well Fargo Bank, May 10 - 14, 2010.

"15 Day Training on Data Mining Techniques for Financial Management", Invited by Southwest University of Finance and Economics, July 5 to 23, 2010.

"20 Day Training on Data Mining Techniques for Financial Management", Invited by Southwest University of Finance and Economics, June 3 to June 28, 2011.

"Large Data and Data Mining", UCF CIO CoP WK GP Session, Orlando, August 14, 2012.

"20 Day Training on Data Mining Techniques for Financial Management", Invited by Southwest University of Finance and Economics, December 3 to December 22, 2012.

"10 Day Training on Data Mining Techniques for Health Risk Assessment and Estimate", Invited by Florida Blue, October 3, 2012 to February 8, 2013.

"Data Mining – An Overview", Invited by Department of Psychology, May 10, 2013.

"Statistical Data Mining with Applications in Education", Invited by Florida Educational Research Association 58<sup>th</sup> Annual Meeting, November 20-22, 2013.

"Data Mining 3 Weeks Short Course" Invited by Capital University of Finance and Economics, June 8-26, 2015. International

"Data Mining 2 Weeks Short Course" Invited Tsinghua University, Beijing, China, June July 1 to July 15, 2015, International

“Opportunities using Big Data Analytics”, Invited by University of Central Florida, UCF Grant Days, October 6, 2015. Regional.

**(F) SEMINARS PRESENTED:**

“On the Self-Validating Computation of Non-Central Gamma Functions,” Conference on Statistics in Agriculture, Manhattan, Kansas, April 1991, International

“Self-Validating Computation of Percentiles for Central and Noncentral Chi-Square Probability Functions,” Statistical Laboratory Seminar, Ames, Iowa, June 1991, Regional

“Self-Validating Computation of Non-Central Chi-Square Distribution,” Joint Statistics Annual Meeting, Atlanta, August 1991, International

“Self-Validating Computation of Non-Central F Distribution,” Joint Statistics Annual Meeting, Boston, August 1992, International

“Self-Validating Computation for the Distribution of the Sample Correlation Coefficient,” Joint Statistical Annual Meeting, San Francisco, August 1993, International

“Dot-Chart a New Way to Present Findings in Educational Research,” Joint Statistical Annual Meeting, San Francisco, August 1993 (with Richard Tamburro), international

“Vote-Counting Method to Determine the Estimate and Confidence Interval for the Population Correlation Coefficient Using SAS/AF,” for SAS User Conference, April 1994 (with Frank C. Lieble, III), International

“Interval Analysis and Self-Validating Computation of Non-Central F Probabilities and Percentiles,” for Conference of Statistics and Computer Science Interface 1994, June 1994 (with William J. Kennedy), International

“A Method for the Computation of Multivariate Normal Probabilities Over Any Convex Region,” for Conference of Statistics and Computer Science Interface, June 1994 (with Paul N. Somerville), International

“Vote-Counting Method to Estimate the Missing Effect Sizes in the Combining Sample Correlation Coefficients,” for Joint Statistical Annual Meetings in Orlando, August 1995 (with Frank Lieble, III), International

“Traffic Simulation along the I-4 Central Corridor,” for Florida Department of Transportation Annual Meeting in Tampa, June 1997 (with Haitham M. Al-Deek, Mohammed Abdallah, Sherif Ishak, and Matthew P. D. Angelo), Regional

“Data Mining for Cataloging the Corrosion Pittings on Solid Rocket Boosters,” for NASA, September 1997 (with Kurt Lin and Allison Sloan), National

“Mixed Effect Models for Meta-analysis,” for Iowa State University Department of Statistics 50<sup>th</sup> Anniversary, October 1997, International

“An On-line Analytical System for Corrosion Pittings Pattern Analysis for Solid Rocket Boosters,” for 1<sup>st</sup> Annual Partners in Education and Research Conference 98 – October 1998, Regional

“The On-Line Survey System for Distance Learning Education at the University of Central Florida,” WebNet 98 – World Conference of the WWW, Internet & Intranet, November, 1998, International

“Data Warehouse & Data Mining Techniques for Airframe Corrosion Control,” Corrosion 99 – National Association on Corrosion Engineering, April 1999, International

“An On-Line data analysis system for Corrosion Pitting Analysis for Solid Rocket Booster with the SAS System, ” SUGI 24 – SAS User Group International, April 1999, International

“A Web-based Survey System for Distributed Learning Impact Evaluation with the SAS System,” for SAS User Group International 25, Indianapolis, April 2000, International.

“A Web-based Survey System for Distance Learning Impact Evaluation,” for 11<sup>th</sup> International Conference on College Teaching and Learning, April 2000, International.

“On the Development of a Data Mining Certificate with the SAS System,” for SAS User Group International 26, Long Beach, April 2001, International.

“On the Analysis of Student Evaluation Data with Decision Tree,” for 12<sup>th</sup> International Conference on College Teaching and Learning, April 2001, International.

“A Study of Student Perception of Instruction at UCF,” for Provost, July 2001, Regional

“Planning and Evaluation Project 2000-01 End-of Year Update,” for President and Provost of the University of Central Florida, August 2001, Regional

“Tree Based Analysis on Student Evaluation Data at University of Central Florida,” for 13<sup>th</sup> International Conference on College Teaching and Learning, April 2002, International.

“On the Development of Dynamic Web Site to Enhance the Information Quality for Decision Making,” for SAS Executive Conference, Cary, N. C., May 2002, International.

“An Automatic Rule-Based Data Base Performance Pattern Detection Technique,” for Joint Statistical annual Meeting, August 2002, International.

“Students’ Ratings of University Teaching: A Data Mining Analysis” (with Charles D. Dzuiban and Ida Cook), for 13<sup>th</sup> International conference on College Teaching and Learning, April 2002, International.

“Web-Based Data Collection and Reporting System for the Closing Gap Project”, The First Staff Meeting, Tampa, Florida, October 9, 2003, State.

“Data Mining Program Status Report”, The Data Mining Board Meeting, Orland, Florida, April 1, 2004, Local.

“Using Data Mining Techniques to Predict Student Development and Retention,” invited by the 2005 National Student Affairs Assessment and Retention Conference, Tampa, Florida, March 19-22, International.

“Predicting Ischemic Stroke Outcomes Based on Volume of Lesion”, 136<sup>th</sup> Annual Meeting of the American Neurological Association, San Diego, CA, September 25-27 2012, International.

“Data Mining for Student Success at the University of Central Florida”, Bai Zhang, Meghal Parikh, Morgan Wang and Sandra Archer, SAS Analytics Conference 2013, Orlando, Florida October 20-22, International.

“Predictive Modeling in Post-Reform Marketplace”, Wu-Chyuan Gau, Andrew France, Maria E. Moutinho, Carl D. Smith, and Morgan C. Wang , the Second International Conference on Health Information Technology Advancement (ICHITA), October 14-15 2013, International.

“Developing Strategies for High School Dropout Prevention”, SAS Global Form, March 22-24 2014, International

**(G) CURRENT RESEARCH INTERESTS:**

Data Mining, Web Mining, Meta-Analysis, and Mining Big Data with Applications on Business Intelligence, Health Intelligence, Educational Intelligence, and Digital Analytics.

## **SERVICE:**

### **(A) COMMITTEE SERVICE:**

1992-93	Department Promotion and Tenure Committee
1993-94	Department Promotion and Tenure Committee
1994-96	College Computing and Information Technology Committee
1995-96	Department Recruit Committee
1996-97	College Computing and Information Technology Committee
1997-98	Faculty Senator College Promotion and Tenure Committee Department Recruit Committee
1997-99	Faculty Senator College Promotion and Tenure Committee Department Recruit Committee
1998-99	Department Personal Committee Department Equipment Committee Department Seminars Committee Special Project Data Mining Graduate Program
2000-01	Department Personnel Committee Department Equipment Committee (not functional due to lack of funding) Department Seminars Committee Department PH. D. Proposal Committee Departmental Strategy Committee Director of Data Mining Program University Plan and Evaluation Committee
2001-02	Department Personnel Committee Department Equipment Committee (not functional due to lack of funding) Department Seminars Committee Department PH. D. Proposal Committee Departmental Strategy Committee Director of Data Mining Program

2002-03	Department Seminars Committee Department PH. D. Proposal Committee Director of Data Mining Program
2003-04	Department Advisory Committee College Promotion and Tenure Committee Director of Data Mining Program College TIP Selection Committee
2004-05	Department Advisory Committee College Sabbatical Selection Committee College Promotion and Tenure Committee Director, Institute of Statistics and Data Mining Director, Data Mining Program Member, I2 Lab Steering Committee
2005-06	Department Advisory Committee College Promotion and Tenure Committee Director, Institute of Statistics and Data Mining Director, Data Mining Program Member, I2 Lab Steering Committee College of Sciences Search Committee Department of Statistics Chair Search Committee College TIP Selection Committee
2006-07	Department Advisory Committee College Promotion and Tenure Committee Director, Institute of Statistics and Data Mining Director, Data Mining Program Department of Statistics Chair Search Committee
2007-08	Department Advisory Committee Department Promotion and Tenure Committee Director, Institute of Statistics and Data Mining Director, Data Mining Program College TIP Selection Committee
2008-09	Department Advisory Committee Department Promotion and Tenure Committee Director, Institute of Statistics and Data Mining Director, Data Mining Program College TIP Selection Committee
2009-10	Department Advisory Committee Department Promotion and Tenure Committee



Director, Institute of Statistics and Data Mining  
 Director, Data Mining Program

2010-11 Department Advisory Committee  
 Department Promotion and Tenure Committee  
 Director, Institute of Statistics and Data Mining  
 Director, Data Mining Program

2011-12 Department Advisory Committee  
 Department Promotion and Tenure Committee  
 Director, Institute of Statistics and Data Mining  
 Director, Data Mining Program  
 Assessment Coordinator

2012-13 Department Advisory Committee  
 Department Promotion and Tenure Committee  
 Director, Institute of Statistics and Data Mining  
 Director, Data Mining Program  
 Assessment Coordinator

2013-14 Department Advisory Committee  
 Department Promotion and Tenure Committee  
 Director, Institute of Statistics and Data Mining  
 Director, Data Mining Program  
 Assessment Coordinator

**(B) PUBLIC SERVICE:**

1991-92 Committee Member of Cub Scouts of America

1992-93 Committee Member of Cub Scouts of America  
 Vice President of American-Chinese Association of Central Florida  
 Judge for the 38<sup>th</sup> Annual State Science and Engineering Fair of Florida

1993-94 Committee Member of Cub Scouts of America  
 Vice President of American-Chinese Association of Central Florida  
 Committee Member of SAS Users Group of Central Florida

1994-95 Committee Member of SAS Users Group of Central Florida  
 Advisor of Korean American Student Association of University of Central Florida

1995-96 Judge for the 41<sup>th</sup> Annual State Science and Engineering Fair of Florida

	Committee Member of SAS Users Group of Central Florida
	Advisor of Korean American Student Association of University of Central Florida
1996-97	Director of Chinese American Association of Central Florida
	Board of Director of Chinese School of Central Florida, Part of Adult Education Program Supported by Orange County School Board
2004-05	Consultant, Seminole County Special Olympics
	Consultant, Federal Emergency Management Agency Mitigation Technical Services Branch
2005-06	Consultant, Seminole County Special Olympics

**(c) PROFESSIONAL ACTIVITIES:**

1991-92	Referee: Statistics and Probability Letters
1992-93	Referee: Journal of Statistical Computation and Simulation
1994-95	Chair, Statistical Computing Session at the American Statistical Annual Meeting
1995-96	Referee: Psychological Methods
1996-97	Associate Editor: Journal of Statistical Computation and Simulation Referee: Journal of American Statistical Association, Psychological Methods, Statistical Computing
1997-98	Associate Editor: Journal of Statistical Computation and Simulation Referee: Psychological Methods
1998 –99	Associate Editor: Journal of Statistical Computation and Simulation Referee: Psychological Methods
1999-00	Associate Editor: Journal of Statistical Computation and Simulation Referee: Psychological Methods
2000-01	Associate Editor: Journal of Statistical Computation and Simulation Referee: Psychological Methods
2001-02	Associate Editor: Journal of Statistical Computation and Simulation Referee: Psychological Methods, Abnormal Psychology, Journal of Computational Statistics and Data Analysis, and Journal of the Transportation Research Board.
2002-03	Associate Editor: Journal of Statistical Computation and Simulation

- 2003-04 Associate Editor: Journal of Statistical Computation and Simulation  
Local Arrangement Committee Chair, SIAM DM 2004  
Referee: Journal of the Transportation Research Board, Jon Wiley & Sons  
Proposal Review: Hong Kong Research Council and Jon Wiley & Sons
- 2004-05 Associate Editor: Journal of Statistical Computation and Simulation  
Referee, International Symposium on Computational and Information Sciences (CIS'04)
- 2005-06 Referee: Journal of American Statistical Association, American Statistician, and, Jon Wiley & Sons
- 2007-08 Referee: For a book proposal entitle " Linear Regression Analysis: Theory and Computation" by Wald Scientific Publishing Co.  
Referee: Journal of Computational and Graphical Statistics, American Statistical Association  
Referee: A Book Chapter of the book "Gold Standard of Scientific Research" by Wald Scientific Publishing Co.
- 2008-09 Referee: Journal of American Statistical Association, American Statistician, and, Jon Wiley & Sons
- 2009-10 Associate Editor, Journal of Data Analysis
- 2010-11 Proposal Review: National Science Foundation
- 2011-12 Referees: Journal of American Statistical Association, American Statistician, and, Jon Wiley & Sons  
Proposal Review: National Science Foundation
- 2012-13 Referees: Journal of American Statistical Association, American Statistician, and, Jon Wiley & Sons  
Proposal Review: National Science Foundation
- 2013-14 Referees: Journal of American Statistical Association, American Statistician, and, Jon Wiley & Sons  
Proposal Review: National Science Foundation

**(D) PROFESSIONAL ORGANIZATION MEMBERSHIPS:**

American Statistical Association  
Elected Member of International Statistical Institute (Honor Membership)  
International Chinese Statistical Association  
Chinese American Scholar Association of Florida