Curriculum Vita

Yishi Wang

Address: Department of Mathematics and Statistics,
University of North Carolina Wilmington,
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Education:

State University of New York at Binghamton	1/04–5/06
PH.D. in Mathematical Statistics, Advisor: Dr. Miguel A. Arcones.	
Dissertation Title: Some New Tests for Normality	
State University of New York at Binghamton	9/01–1/04
MA in Mathematical Statistics	
Zhongshan University, China	9/98–7/01
MS in Statistics	
University of Science and Technology Beijing, China	9/94–7/98
BS in Applied Mathematics and Computer Science	

Professional Experience:

Professor, University of North Carolina Wilmington,	08/15 – present
Associate Professor, University of North Carolina Wilmington,	08/11 – 07/15
Assistant Professor, University of North Carolina Wilmington,	08/08 – 07/11.
Assistant Professor, Western Carolina University,	08/06 – 05/08.

Peer Reviewed Publications:

1. Pricope NG, Minei A, Halls JN, Chen C, Wang Y. UAS Hyperspatial LiDAR Data Performance in Delineation and Classification across a Gradient of Wetland Types. *Drones*. 2022; 6(10):268. https://doi.org/10.3390/drones6100268
2. Doddato. F.A., Ford, J., Wang, Y., & Puente, A. (2022). An Alternative Approach to TOMM Cut-off Scores Using a Large Sample of Military Personnel. *Applied Neuropsychology: Adult.* Accepted September 2022.
3. McDaniel, A. T., Schroeder, L. H., Freedman, J. A.*, Wang, Y., & Heijnen, M. J. (2021). Evaluating the Intra-Rater and Inter-Rater Reliability of Fixed Tension Scale Instrumentation for Determining Isometric Neck Strength. *International Journal of Exercise Science*, *14*(3), 563.
4. Puente, A. E., Sekely, A.*, Chen, C., Wang, Y., & Steed, A. (2020). Development of a large outpatient psychological dataset of Marines and Navy personnel. *Archives of Scientific Psychology*, *8*(1), 15.

5. Kempfert, K. C.*, Wang, Y., Chen, C., & Wong, S. W. (2020). A comparison study on nonlinear dimension reduction methods with kernel variations: Visualization, optimization and classification. *Intelligent Data Analysis*, *24*(2), 267-290.
6. Enneking, K. M., Breitenstein, G. R., Coleman, A. F., Reeves, J. H., Wang, Y., & Grove, N. P. (2019). The Evaluation of a Hybrid, General Chemistry Laboratory Curriculum: Impact on Students' Cognitive, Affective, and Psychomotor Learning. *Journal of Chemical Education*, *96*(6), 1058-1067.
7. Werther, C.*, Ferguson, M.*, Park, K.*, Kling, T., Chen, C., & Wang, Y. (2018, December). Gender Effect on Face Recognition for a Large Longitudinal Database. In *2018 IEEE International Workshop on Information Forensics and Security (WIFS)* (pp. 1-7). IEEE.
8. Wang, Y., Stapleton, A. E., & Chen, C. (2018). Two-sample nonparametric stochastic order inference with an application in plant physiology. *Journal of Statistical Computation and Simulation*, *88*(14), 2668-2683.
9. Benjamin Yip*, Garrett Bingham*, Katherine Kempfert*, Jonathan Fabish*, Troy Kling*, Cuixian Chen, Yishi Wang. Preliminary Studies on a large longitudinal face database. *The 5th National Symposium for NSF REU Research in Data Science, Systems, and Security.* A Symposium at 2018 IEEE International Conference on Big Data (IEEE Big Data 2018). December 10-13, 2018, Seattle, WA, USA.
10. Lipscomb, N.*, Gratton, A.*, Chang, Y. , Chen C. , and Wang, Y.. Continuously Updating Nonnegative Matrix Factorization. *2018 INFORMS International Conference Taipei*, Taiwan, June 17–20, 2018. ISBN 978-0-9906153-1-6.
11. Stutts, L.*, Wang, Y., & Stapleton, A. E. (2018). Plant growth regulators ameliorate or exacerbate abiotic, biotic and combined stress interaction effects on Zea mays kernel weight with inbred-specific patterns. *Environmental and Experimental Botany*, *147*, 179-188.
12. Fang, Q., Piegorsch, W. W., Simmons, S. J., Li, X., Chen, C., & Wang, Y. (2015). Bayesian model-averaged benchmark dose analysis via reparameterized quantal-response models. *Biometrics*, *71*(4), 1168-1175.
13. Wang, Y., Chen, C., Watkins, V.*, & Ricanek, K. (2015, June). Modified supervised kernel pca for gender classification. In *International Conference on Intelligent Science and Big Data Engineering* (pp. 60-71). Springer, Cham.
14. Simmons, S.J., Chen, C., Li, X., Wang, Y., Piegorsch, W.W., Fang, Q., Hu, B. and Dunn, G.E., (2015). Bayesian model averaging for benchmark dose estimation. *Environmental and Ecological Statistics*, *22*(1), 5-16.
15. Wang, Y. S., Simmons, S. J., Smith, L. L.*, & Stapleton, A. E. (2014). A novel metric distance on registered curves with application to a Fourier transform-infrared spectroscopy analysis of maize. *Journal of the Indian Society of Agricultural Statistics*, *68*(2), 181-190.
16. Albert, A. M., Chen, C., Wang, Y., & Chang, Y. (2014). Functional data analysis in the use of eyebrow shape as a biometric indicator in face recognition. *International Journal of Biometrics*, *6*(2), 166-179.

17. Fan,Y, Michael, T., and Wang, Y. (2014) An exploration study of the current state of career development for project managers in the IT and other industries. *International Journal of Information Technology Project Management, issue 3 pp.21-38.*

18. Wang, Y., Chen, C., Albert, M., Chang, Y., & Ricanek, K. (2013). Eyebrow shape analysis by using a modified functional curve procrustes distance. In *2013 IEEE Sixth International Conference on Biometrics: Theory, Applications and Systems (BTAS)* (pp. 1-7). IEEE.

19. Chen, C., Wang, Y., Chang, Y., & Ricanek, K. (2012, July). Sensitivity analysis with cross-validation for feature selection and manifold learning. In *International Symposium on Neural Networks* (pp. 458-467). Springer, Berlin, Heidelberg.

20. Chang, Y., Wang, Y., Chen, C., & Ricanek, K. (2011). Improved image-based automatic gender classification by feature selection. *Journal of Artificial Intelligence and Soft Computing Research*, *1*(3), 241-253.

21. Chen, C., Yang, W., Wang, Y., Shan, S., & Ricanek, K. (2011, December). Learning gabor features for facial age estimation. In *Chinese Conference on Biometric Recognition* (pp. 204-213). Springer, Berlin, Heidelberg.

22. Chang, Y., Wang, Y., Ricanek, K., & Chen, C. (2011, April). Feature selection for improved automatic gender classification. In *2011 IEEE Workshop on Computational Intelligence in Biometrics and Identity Management (CIBIM)* (pp. 29-35). IEEE.

23. Chen, C., Yang, W., Wang, Y., Ricanek, K., & Luu, K. (2011, March). Facial feature fusion and model selection for age estimation. In *2011 IEEE International Conference on Automatic Face & Gesture Recognition (FG)* (pp. 200-205). IEEE.

24. Bailey, J. A., Wang, Y., Van De Goot, F. R., & Gerretsen, R. R. (2011). Statistical analysis of kerf mark measurements in bone. *Forensic science, medicine, and pathology*, *7*(1), 53-62..

25. Schick, A., Wang, Y., & Wefelmeyer, W. (2011). Tests for normality based on density estimators of convolutions. *Statistics & probability letters*, *81*(2), 337-343.

26. Wang, Y., Ricanek, K., Chen, C., & Chang, Y. (2010, September). Gender classification from infants to seniors. In *2010 Fourth IEEE International Conference on Biometrics: Theory, Applications and Systems (BTAS)* (pp. 1-6). IEEE..

27. Chen, C., Chang, Y., Ricanek, K., & Wang, Y. (2010, June). Face age estimation using model selection. In *2010 IEEE Computer Society Conference on Computer Vision and Pattern Recognition-Workshops* (pp. 93-99). IEEE..

28. Wang, Y., Chen, C., & Kong, F. (2011). Variance estimation of the Buckley–James estimator under discrete assumptions. *Journal of Statistical Computation and Simulation*, *81*(4), 481-496.

29. Ricanek, K., Wang, Y., Chen, C., & Simmons, S. J. (2009, September). Generalized multi-ethnic face age-estimation. In *2009 IEEE 3rd International Conference on Biometrics: Theory, Applications, and Systems* (pp. 1-6). IEEE.

30. Arcones, M. A., & Wang, Y. (2009). Some new tests for normality in the linear regression model. *Far East J. Theor. Stat.* Vol 28, Issue 1, pp. 57 – 106.

31. Arcones, M. A., & Wang, Y. (2006). Some new tests for normality based on U-processes. *Statistics & probability letters*, *76*(1), 69-82.

External Grants, Patent and Awards:

1. Howell, S., Bassham,D., Brandizzi, F., Stapleton, A., and Wang, Y. "Role of the Unfolded Protein Response in Environmental Stress Tolerance in Maize". 2016-2021, NSF-IOS. $2,251,487.00.
2. Cuixian Chen (PI), Yishi Wang (Co-PI). "Interdisciplinary integration in statistical learning and data mining at the University of North Carolina Wilmington". 2017-2021 NSF-REU. $253,683.00.
3. Karl Ricanek, JR., Yishi Wang, Yaw Chang, Cuixian Chen, "Demographic analysis of facial landmarks", *U.S. Patent:* 9, 317, 740, issued date April 19, 2016.
4. Research Fellow, Statistics and Mathematics Sciences Institute (SAMSI). 09/13- 05/14
5. Ricanek, K. (Principal), Albert, A. M. (Co-Principal), Wang, Y. (Co-Principal), Chang, Y. (Co-Principal), Chen, C. (Co-Principal). " Face and Component Face for the FBI Biometric Center of Excellence", DOJ Federal Bureau of Investigation (FBI), Federal, $344,009.00, Funded (start: Oct 2011, end: Sep 2012).
6. Best poster paper Award. IEEE Conference on Biometrics: Theory, Applications, and Systems (BTAS), September, 2010.
7. Travel grants to Statistics and Mathematics Sciences Institute (SAMSI) for joining LDHD workshop.

Grants, and Awards from UNCW:

1. UNCW NSF-REU Program Support. UNCW CAS. Summer 2017. $2500.
2. UNCW Cahill Award, 2016, Cuixian Chen, and Yishi Wang. Summer 2016. $11,000.
3. UNCW Graduate Research Assistant Support, Graduate School, UNCW. Antonio Puente, Yishi Wang, and Cuixian Chen. 08/2015-05/2016. $11,000.
4. UNCW CAS 2016 Professional Development Awards, Yaw Chang, Cuixian Chen, Wei Feng, Michael Freeze, Xin Lu, Yishi Wang. Summer 2016. $2500.
5. UNCW ETEAL-Supported Pedagogy Initiatives fall 2016, "*Text Analytics with combination of Linguistic Art*", C. Chen, Y. Wang, and J. Kontny., $3,500.
6. UNCW Summer Undergraduate Research and Creativity Award (SURCA), summer 2016, "*Statistical Applied Learning with Applications in UNCW ETEAL Assessment Data*", Y.Wang and C. Chen., $5,000,
7. CTE Teaching Pedagogy award, summer 2016, "*Time Series Analysis with Applications in Business analytics*", $3,000.
8. UNCW ETEAL-Supported Pedagogy Initiatives spring 2016, "*Statistical Data Mining with Applications in Business Analytics*", Y. Wang, C. Chen, and C. Ciner., $3,500.
9. UNCW Summer Undergraduate Research and Creativity Award (SURCA), summer 2015. "*Novel Statistical Models to Measure Mental Health*", $5,000.
10. Cahill Award, fall 2014. $3,000, with Dr. Chen and Dr. Puente. "Interdisciplinary Statistical Analysis for Military Traumatic Brain Injury and Post-Traumatic Stress Disorder Assessment".
11. ETEAL pedagogy initiative, "*Learning Contemporary Statistical Data Mining Techniques through Interdisciplinary Projects*", $3,500, with Dr. Chen from UNCW. Summer 2014.
12. ETEAL pedagogy initiative, "Learning Contemporary Statistical Data Mining Techniques through Interdisciplinary Projects", $3,500, with Dr. Chen from UNCW. Summer 2014.
13. Summer Curriculum Development 2014, "*Introduction to Financial Mathematics, a new course for students who are interested in actuary science*". $3,000.
14. Research reassignment Spring 2014 semester, UNCW.

15. Travel Grant from International program office UNCW. October 2011.
16. Travel Award, Statistics and Mathematics Sciences Institute (SAMSI), September 2010.
17. Summer Research Initiative Award, University of North Carolina Wilmington, 2009

Professional Service:
1. Program Chair of the Section on Risk Analysis of American Statistics Association, May 2015-May 2018.
2. Reviewer for
   - International Journal of Statistics and Management System;
   - Environmetrics;
   - Mathematical Reviews;
   - Transactions on Systems, Man, and Cybernetics--Part A: Systems and Humans;
   - Journal of Pattern Recognition Research
   - Journal of Statistical Computation and Simulation
   - Journal of the Indian Society of Agricultural Statistics
   - Psychological Assessment
3. Coordinator of Actuarial Certificate program at UNCW.
4. Director of Interdisciplinary Data Enrichment and Analytic Lab (IDEAL) at UNCW.
5. Active members of institute for Interdisciplinary Studies in Identity Sciences (former Face aging group), conduct research and scholarship work with faculty members across campus, direct undergraduate research.
6. Program committee member of International Conference on Intelligence Science and Big Data Engineering 2015.
7. Program committee member of Intelligence Science and Intelligent Data Engineering 2012
8. Member of 2008 Southern Regional Council on Statistics Business meeting. October 2008

Presentations:
1. Inference of a two-sample order free trend test, Oct 1, 2020, Invited Presentation at Binghamton University.
2. The Asymptotic Distribution of a Non-parametric Two Sample Order Free Trend Test, Aug 3, 2020, JSM 2020.
3. Two sample order free inference with application in a plant physiology, Oct 6, 2017, Invited presentation at UNCG
4. Two Sample Order Free Trend Inference, a nonparametric approach. August, 2017, Joint Statistical meeting
5. Human Detection from Images with Supervised Kernel PCA, JSM 2016
6. International Conference on Intelligence Science and Big Data Engineering. Suzhou, China, "Gender Classification Using Supervised Kernel PCA". July 2015.
7. Mathematical Association of America (MAA), Cookeville, Tennessee, "Optimal metric distance on registered curves with application to a Fourier transform infrared spectroscopy analysis of maize". March 2014.
8. Joint Statistical Meeting (JSM), Montreal, Canada, "Eyebrow Shape Analysis by Using a Modified Functional Curve Procrustes Distance". August 2013.
9. Chinese Conference on Biometric Recognition (CCBR), Beijing, China, "Learning Gabor Wavelets with Features Fusion and Feature Selection for Facial Age Estimation". December 2011.
10. IEEE Computer Society Workshop on AMFG, in association with the 23th IEEE Conf. on Computer Vision and Pattern Recognition, San Francisco, "Face Age Estimation Using Model Selection". June 2010.
11. IEEE Conference on Biometrics: Theory, Applications, and Systems, Washington, D.C., "Generalized Multi-Ethnic Face Age-Estimation". September, 2009.

12. Eastern North American Region (ENAR)/International Biometric Conference, San Antonio, TX, "Variance Estimation of the Buckley-James Estimator under Discrete Assumptions", March 2009.
13. University of Mississippi, "Normality tests based on U-process for residuals from linear regression". April 2008.
14. Annual JSM Meeting, Salt Lake City, "Some new normality tests using kernel density estimators". October 2007.
15. 2006 MAA-AMS Joint Mathematics Meeting, San Antonio, TX, "Some new tests for normality based on U-processes". January 2006.
16. MAA Seaway Section meeting, Ithaca, NY, "Normality tests based on empirical processes". April 2006.

Memberships:

Member of American Statistical Association;
Member of Institute of Mathematical Statistics.
IEEE.