

Sy Han (Steven) Chiou, Ph.D.

CONTACT INFORMATION	Department of Statistics and Data Science, Heroy Hall, P.O. Box 750332, Dallas, Texas, USA 75275.	214.768.2441 schiou@smu.edu www.sychiou.com
ACADEMIC APPOINTMENTS	Assistant Professor Department of Statistics and Data Science, Southern Methodist University	August 2023 – Present
	Biostatistician Biostatistics Core, Department of Surgery, University of California San Francisco	August 2021 – Present
	Assistant Professor Department of Mathematical Science, The University of Texas at Dallas	August 2017 – July 2023
	Postdoctoral Research Fellow Department of Biostatistics, Harvard T.H. Chan School of Public Health Supervisor: Rebecca Betensky, Ph.D.	August 2015 – July 2017
	Assistant Professor Department of Mathematics and Statistics, University of Minnesota Duluth	August 2013 – May 2015
EDUCATION	University of Connecticut , Storrs, CT Ph.D., Statistics, May 2013 Thesis Topic: Statistical methods and computing for semiparametric accelerated failure time model with induced smoothing. Advisers: Jun Yan, Ph.D. and Sangwook Kang, Ph.D. University of Connecticut , Storrs, CT B.S., Statistics, May 2008 B.S., Applied Mathematical Sciences, May 2008 <i>Member of the National mathematics Honorary Society, Pi Mu Epsilon.</i>	
REFEREED JOURNAL PUBLICATIONS	<ol style="list-style-type: none">Greenberg, A.L., Brand, N. R., Zambeli-Ljepović, A., Barnes, K.E., Chiou, S., Rhoads, K.F., Adam, M.A., and Sarin, A., (2023). “Exploring the complexity and spectrum of racial/ethnic disparities in colon cancer management” <i>International Journal for Equity in Health</i>, 22 (1), 1 - 15.Smeltzer, J.C., Chiou, S., and Shembel, A.C., (2023). “Interoception, voice symptom reporting, and voice disorders.” <i>Journal of Voice</i>, accepted.Smeltzer, J.C., Chiou, S., and Shembel, A.C., (2023). “Patient profiling: Determining the effects of patient factors on vocal fatigue.” <i>Journal of Voice</i>, accepted.Chiou, S., Xu, G., Yan, J. and Huang, C.Y., (2023). “Regression modeling for recurrent events using R Package reReg.” <i>Journal of Statistical Software</i>, 105, 1-34.	

5. Sun, Y., **Chiou, S.**, Wu, C.O., McGarry, M. and Huang, C.Y., (2023). “Dynamic risk prediction using survival tree ensembles with application to Cystic Fibrosis.” *Annals of Applied Statistics*, 17 (2), 1375.
6. Su, C.L., **Chiou, S.**, Lin, F.C. and Platt, R.W., (2022). “Analysis of survival data with cure fraction and variable selection: A pseudo-observations approach.” *Statistical Methods in Medical Research*, 31 (11), 2037–2053.
7. Greenberg, A., Brand, N. R., **Chiou, S.**, Rhoads, K., Adam, M., & Sarin, A. (2022). “Racial disparities in colon cancer management in the National Cancer Database.” *Journal of Clinical Oncology*, 40, 4_suppl, https://doi.org/10.1200/JCO.2022.40.4_suppl.018
8. Brand, N.R., Greenberg, A.L., **Chiou, S.**, Adam, M. and Sarin, A., (2022). “Association of distance, region, and insurance with advanced colon cancer at initial diagnosis.” *JAMA Network Open*, 5 (9), pp.e2229954-e2229954.
9. Qian, J., **Chiou, S.**, and Betensky, R.A. (2022). “Transformation model based regression with dependently truncated and independently censored data.” *Journal of the Royal Statistical Society. Series C: Applied Statistics*, 71 (2), 395–416.
10. Fernández, E., Yang, S., **Chiou, S.**, Moon, C., Zhang, C., Yao, B., Xiao, G. and Li, Q., (2022). “SAFARI: shape analysis for AI-segmented images.” *BMC medical imaging*, 22 (1), 1–7.
11. Alyabs, N. and **Chiou, S.**, (2022). “The Missing Indicator Approach for Accelerated Failure Time Model with Covariates Subject to Limits of Detection.” *Stats*, 5 (2) 494–506.
12. Sun, Y., **Chiou, S.**, Marr, K.A., and Huang, C.-Y. (2022). “Statistical inference on shape-and size-indexes for counting processes.” *Biometrika*, 109 (1), 195–208.
13. Vakulenko-Lagun, B., Qian, J., **Chiou, S.**, Wang, N., and Betensky, R.A. (2022). “Nonparametric estimation of the survival distribution under covariate-induced dependent truncation” *Biometrics*, 78 (4), 1390–1401.
14. Sun, Y., **Chiou, S.**, and Wang, M.-C. (2020) “ROC-guided survival trees and ensembles.” *Biometrics*, 76 (4), 1177–1189.
15. Xu, G., **Chiou, S.**, Yan, J., Marr, K., and Huang, C.-Y. (2020). “Generalized scale-change models for recurrent event processes under informative censoring.” *Statistica Sinica*, doi:<http://dx.doi.org/10.5705/ss.20XX.XXX>.
16. **Chiou, S.**, Betensky, R. A., and Balasubramanian, R. (2019). “The missing indicator approach for censored covariates subject to limit of detection in logistic regression models.” *Annals of Epidemiology*, 38, 59–64.
17. Vakulenko-Lagun, B., Qian, J., **Chiou, S.**, and Betensky, R. A. (2019). Nonidentifiability in the presence of factorization for truncated data. *Biometrika*, 106 (3), 724–731.
18. **Chiou, S.**, Austin, M., Qian, J., and Betensky, R. A. (2019) “Transformation model estimation of survival under dependent truncation and independent censoring.” *Statistical Methods in Medical Research*, 28 (12), 3785–3798.
19. Ly, K., Oakley, D., Pine, A., Frosch, M., **Chiou, S.**, Betensky, R., Pomerantz, S., Hochberg, F., Batchelor, T., Cahill, D., and Dietrich, J. (2019) “Wide Range of Clinical Outcomes in Patients with Gliomatosis Cerebri Growth Pattern: A Clinical, Radiographic, and Histopathologic Study.” *Oncologist*, 24 (3): 402–413.
20. **Chiou, S.**, Huang, C.-Y., Xu, G., and Yan, J. (2019) “Semiparametric regression analysis of panel count data: A practical review.” *International Statistical Review*, 87 (1): 24–43.
21. **Chiou, S.**, Qian, J., Mormino, E., Bentensky, R., Alzheimer’s Disease Neuroimaging Initiative, Australian Imaging Biomarkers and Lifestyle Flagship Study of Aging, Harvard Aging Brain Study. (2018) “Permutation tests for general dependent truncation.” *Computational Statistics & Data Analysis*, 128: 308-324.

22. Beehler, S., **Chiou, S.**, Balmer, B. and Li, X. (2018) “Intrarural variation in mental health status and help-seeking of veterans in the upper midwest.” *Journal of Rural Mental Health*, 42 (3-4): 161–173.
23. Qian, J., **Chiou, S.**, Maye, J. E., Atem, F., Johnson, K. A., and Betensky, R. (2018) “Threshold regression to accommodate a censored covariate.” *Biometrics*, 74(4): 1261–1270.
24. Montero-Chacón, L.B., Padilla-Cuadra, J.I., **Chiou, S.**, and Torrealba-Acosta, G. (2018) “High-density lipoprotein, mean platelet volume, and uric acid as biomarkers for outcomes in patients with sepsis: An observational study.” *Journal of Intensive Care Medicine*, 0885066618772825.
25. Torrealba-Acosta, G., Carazo-Cespedes, K., **Chiou, S.**, O’Brien, A., and Fernandez-Morales, H. (2018) “Epidemiology of stroke in Costa Rica: A seven-year hospital-based acute stroke registry of 1319 consecutive patients.” *Journal of Stroke and Cerebrovascular Disease*, 27 (5): 1143–1152.
26. **Chiou, S.**, Xu, G., Yan, J., and C.-Y. Huang (2018) “Semiparametric estimation of the accelerated mean model with panel count data under informative examination times.” *Biometrics*, 74 (3): 944–953.
27. Lee, S., Daimon, M., Di Tullio, M., Homma, S., Hasegawa, T., **Chiou, S.**, Nakao, T., Hirokawa, M., Mizuno, Y., Yatomi, Y., Yamazaki, T., and Komuro, I. (2018) “Beneficial effect of body weight control on left ventricular diastolic function in the general population: An analysis of longitudinal data from a health check-up clinic.” *European Heart Journal-Cardiovascular Imaging*, 19(2): 136–142.
28. Betensky, R. A. and **Chiou, S.** (2017) “Correlation among baseline variables yields non-uniformity of p-values.” *PLoS One*, 12(9): e0184531.
29. Xu, G., **Chiou, S.**, Huang, C.-Y., Wang, M.-C. and Yan, J. (2017) “Joint scale-change models for recurrent events and failure time.” *Journal of the American Statistical Association*, 112 (518): 764–805.
30. **Chiou, S.** and Xu, G. (2017) “Rank-based estimation for semiparametric accelerated failure time model under length biased sampling.” *Statistics and Computing*, 27 (2): 483–500.
31. Wang, W., Chen, M.-H., **Chiou, S.**, Lai, H.-C., Wang, X., Zhang, Z. and Yan, J. (2016) “Onset of persistent *Pseudomonas Aeruginosa* infection in children with cystic fibrosis with interval censored data.” *BMC Medical Research Methodology*, 16 (122): 1–10.
32. **Chiou, S.**, Kang, S. and Yan, J. (2015) “Rank-based estimating equations with general weight for the accelerated failure time model: An induced smoothing approach.” *Statistics in Medicine*, 34 (9): 1495–1510.
33. **Chiou, S.**, Kang, S. and Yan, J. (2015) “Semiparametric accelerate failure time modeling for clustered failure times from stratified sampling.” *Journal of American Statistical Association*, 110 (510): 621–629.
34. **Chiou, S.**, Kang, S. and Yan, J. (2014) “Fitting accelerated failure time model in routine survival analysis with R Package aftgee.” *Journal of Statistical Software*, 61 (11): 1–23.
35. **Chiou, S.**, Kang, S. , Kim, J. and Yan, J. (2014) “Marginal semiparametric multivariate accelerated failure time model with generalized estimating equation.” *Lifetime Data Analysis*, 20 (4): 599–618.
36. **Chiou, S.**, Kang, S. and Yan, J. (2014) “Fast accelerated failure time modeling for case-cohort data.” *Statistics and Computing*, 24 (4): 559–568.

INVITED BOOK
CHAPTERS

1. Vaughan, G., Aseltine, R., **Chiou, S.**, and Yan, J. (2016) “An alarm system for flu outbreaks using Google Flu Trend Data.” *Statistical Applications from Clinical Trials and Personalized Medicine to Finance and Business Analytics*, pp. 293–304, Springer International Publishing.
2. **Chiou, S.**, Kang, S., and Yan, J. (2015) “Disappearance of 0.400 hitters: A change point extreme value analysis of top baseball batting average.” *Extreme Value Modeling and Risk Analysis: Methods and Applications*, pp. 493-504, CRC Press.

SOFTWARE	aftgee “Accelerated failure time model with generalized estimating equations” https://cran.r-project.org/web/packages/aftgee/index.html
	censCov “Linear regression with a randomly censored covariate” https://cran.r-project.org/web/packages/censCov/index.html
	permDep “Permutation based test for quasi-independence” https://cran.r-project.org/web/packages/permDep/index.html
	reda “Recurrent event data analysis” https://cran.r-project.org/web/packages/reda/index.html
	reda “Recurrent event data analysis” https://cran.r-project.org/web/packages/reda/index.html
	reReg “Recurrent event regression” https://cran.r-project.org/web/packages/reReg/index.html
	rocTree “Receiver Operating Characteristic (ROC)-guided survival trees and forests” https://cran.r-project.org/web/packages/rocTree/index.html
	qris “Quantile regression model for residual lifetime using an induced smoothing approach” https://cran.r-project.org/web/packages/qris/index.html
	spef “Functions for fitting semiparametric regression models for panel count survival data” https://cran.r-project.org/web/packages/spef/index.html
	tranSurv “Transformation model estimation of survival under dependent truncation and independent censoring” https://cran.r-project.org/web/packages/tranSurv/index.html

EDITORIAL SERVICES	<i>Japanese Journal of Statistics and Data Science</i> Associate editor	2023 to present
	<i>American Journal of Physical Medicine & Rehabilitation</i> Research design & analysis editor	2023 to present
	<i>Journal of Data Science</i> Associate editor	2020 to present

HONOR AND AWARD	The Association of College and University Educators (ACUE) Certified faculty	2021
	International Statistical Institute Elected Member	2019
	Harvard T.H. Chan School of Public Health Kocaeli University School of Medicine International Travel Award	2016
	University of Minnesota Duluth International Travel Grant	2014
	University of Connecticut Doctoral Dissertation Fellowship	2013
	University of Connecticut Travel Award for Doctoral Students	2012
	International Chinese Statistical Association Student Paper Award	2012

TEACHING EXPERIENCE	Southern Methodist University	
	Stat 6350 Analysis of Lifetime Data	Spring 2024
	Stat 6324 Statistical Computing	Fall 2023
	The University of Texas at Dallas	
	Stat 6341 Numerical Linear Algebra and Statistical Computing	Fall 2019 – 22
	Stat 6339 Linear Regression Model	Spring 2019
	Stat 6390 Special Topic in Statistics: Analysis of Survival Data	Fall 2018
	Stat 5353 Probability and Statistics for Data Science and Bioinformatics	Spring 2018 – 23
	Stat 4354 Numerical and Statistical Computing	Spring 2020 – 23, Fall 22
	Stat 2332 Introductory Statistics for Life Sciences	Fall 2017, 20, 21
	The University of Minnesota Duluth	
	Stat 4101 Actuarial Probability	Spring 2015
	Stat 4060 Introduction to Biostatistics	Spring 2014, Spring 2015
	Stat 3611 Introduction to Probability and Statistics	Fall 2013, 14, Spring 2015
Stat 5531 Probability Models	Fall 2014	
Stat 1411 Introduction to Statistics	Summer 2014	
University of Connecticut		
Stat 315 Introduction to Mathematical Statistics	Fall 2011, 12	
Stat 110 Elementary Concepts of Statistics	Summer 2011	
Stat 110 Elementary Concepts of Statistics (as teaching assistant)	Fall 2008 – Fall 2011	
SHORT COURSE	International Chinese Statistical Association Applied Statistics Symposium	
	Applied Event Time Data Analysis with R	June 2023
	New England Statistics Symposium	
	Applied event time data analysis with R	June 2022
	The ISI World Statistics Congresses	
	Recurrent event analysis in R with the reReg package	April 2021, 2022
	Virtual conference on data science in action (hosted by Shanxi University of Finance and economics)	
	Recurrent event analysis with the reReg and reda	July 2020
	Kocaeli University School of Medicine, Turkey	
	Introduction to survival analysis methods in R (guest lecturer)	May 2016
SOA EXAM	Society of Actuaries: Exam P, FM, MLC passed.	
SERVICE	North Texas Chapter of the American Statistical Association	
	Secretary	January 2023 – Present
	President	August 2019 – December 2022
	Vice President	August 2018 – May 2019
	The University of Texas at Dallas	
	Faculty adviser for UTD Go Association	February 2018 – Present
	Faculty member for UTD Sustainability Committee	February 2018 – February 2019
	Harvard T.H. Chan School of Public Health	
	Coordinator for Neurostatistics Working Group	August 2016 – July 2017
	University of Minnesota Duluth	
	Planning Committee for the Twin Port R User Group	August 2013 – May 2015
	Actuary Club Adviser	Spring 2014 – Spring 2015
	Review Committee for the Undergraduate Research Opportunities Projects	Spring 2014, Spring 2015
	Mentor for Global One Health Case Competition	Spring 2014