FIELDS OF RESEARCH/INTEREST

Applied, computational and theoretical statistics; Building high performing predictive modeling; Data Science education; Nonparametric and robust modeling and estimate methods; Multi-level modeling; Modeling, estimation, prediction and testing with dependent error structures using robust nonparametric methods; Robustification of machine learning algorithms.

DATA MODELING EXPERIENCE

Statistical Models: Linear, nonlinear, parametric and nonparametric Regression Modeling, Multivariate Modeling, Mixed Effects Models (Nested, HLM, TVEM, Random Effects), Modeling Fractional Brownian Motion, Modeling extreme events, and others.

Machine Learning Models: Industry-standard predictive algorithms such as Artificial Neural Networks, Support Vector Machines, Genetic Algorithm, and Deep Learning; Latent Dirichlet Allocation (LDA); and many others.

Statistical Language/Tools: SAS, R, Python, Anaconda Distribution System for Data Science tasks, and others.

OTHER INTERESTS

ASA's Rochester Chapter Officer and Treasurer; Organizing Committee Member at Regional Conferences UPSTAT and Data Contests DataFest; Statistical Consultant; Math Teacher Trainer in Prob&Statistics.

CONTACT

40 Woodbine Pk., Geneseo, NY, 14454
585-5366427, yusuf.k.bilgic@gmail.com

LEADERSHIP EXPERIENCE

Education committee chair; Geneseo Interfaith Center board member; School admin; Project leader.

YUSUF K. BILGIC

Statistician, Data Analyst and Scientist, and Educator

EDUCATION

PhD in Statistics, Statistics Department, Western Michigan University
2008 – 2012, MI USA
Thesis: Rank-Based Estimation and Prediction for Random Nested Models.
4.0/4.0 GPA in all statistics courses (16 various graduate-level courses)

MA in Mathematics, Western Michigan University
2006 – 2008, MI USA
Reform-Oriented curriculum and technology in teaching math.

WORK EXPERIENCE

SUNY Geneseo, Liberal Arts College, Stats Faculty in the Dept of Math
2012–Present, NY USA
The sole faculty in stats and data science; 40 Math and Statistics courses taught; 6 new courses in Statistics and Machine Learning designed and taught; A high number of directed and research studies completed with advanced undergraduate math students; Statistical consultants and data analyses for research projects; Curriculum and program proposed or developed in Statistics and Data Science.

Bronson Hospital Public Research (Center for Clinical Research), Statistical Analyst and Consultant
2009–2011, MI USA
Primary statistician on data analysis and writing reports; Conducting statistics seminars for health researchers.

MMRI Projects, Research and Data Assistant
2007–2009, MI USA
Data analyst, module developer, and facilitator in site workshops.

SELECTED WRITING, PROJECT AND INTIATIVE EXPERIENCE

Declined NSF Proposal
2018, Initiator and Co-PI of a half-million dollar project on 'Improving probabilistic reasoning through data-based real world applications' with a team of experts from academia. Received two 'Good's, one 'Fair', and one 'Poor' rating. Under revision.

SELECTED PUBLICATIONS

Abebe A., McKean J. W., Kloke J. D., and Bilgic Y. K. 2016. Iterated Reweighted Rank-Based Estimates for GEE Models. Robust Rank-Based and Nonparametric Methods, Volume 168 of the Series Springer Proceedings in Mathematics & Statistics, pp 61-79.

Bilgic, Y. K., Susmann, H. 2013. rlme: An R Package for Rank-Based Estimation and Prediction in Random Effects Nested Models. The R Journal, 5(2):7180.

Bilgic, Y. K., J., Susmann, H., McKean. 2014. rlme: An R Package for Rank-Based Estimation and Prediction in Random Effects Nested Models. R package Version 0.5.

LaVigne N., Bilgic Y. 2015. Robust Estimators in Fuzzy Logic Cellular-Automata Salt And Pepper Noise Filtering. International Journal of Computers & Technology. Vol 15, No 1, 2015.

Trafimow D, Amrhein V, Areshenkoff CN, Barrera-Causil C, Beh EJ, Bilgic Y, and over 40 international collaborators. 2018. Manipulating the alpha level cannot cure significance testing. PeerJ Preprints 6:e3411v3.