Yi Tan

Department of Information Systems, Supply Chain, and Analytics
College of Business, University of Alabama in Huntsville
301 Sparkman Drive, Huntsville, AL, 35899
Email: yi.tan@uah.edu

RESEARCH INTERESTS

Machine/Statistical learning, business analytics, empirical research in OM/Finance interface

EDUCATION

UNIVERSITY OF KANSAS
PhD in Business   May 2020

UNIVERSITY OF CINCINNATI
MS in Business Analytics   December 2013

WUHAN UNIVERSITY
BS in Statistics   August 2011

ACADEMIC EXPERIENCE

UNIVERSITY OF ALABAMA IN HUNTSVILLE
Assistant Professor of Management Science   2020 - present

RESEARCH

Publications

- Huang, W., Wang, Z., Bao, Y., **Tan, Y.,** Yeung, A. C. (2026): Do More Services Lead to Better Buyer-supplier Relationships? The Unintended Consequence of Manufacturing Firms Providing Customer Solutions. Accept at *Production and Operations Management*. (UTD24, FT50, Rating A* on ABDC list, Authors 2–4 contributed equally as second authors)

- Pham, H., Arwade, G., **Tan, Y.**, Bhatt, P., Pavlopoulos V. (2026): Instance Selection via Weighted Dimensional Reduction and Adaptive Stratified Clustering for Balanced and Imbalanced Data. Accept at *Journal of Classification*.

- Pham, H., Bhatt, P., Pavlopoulos, V., **Tan, Y.**, & Patnayakuni, R. (2026). A Comparative Study of Convolutional Neural Networks and Vision Transformers for Agricultural Image Classification. *Journal of Database Management*, *36*(1), 1-27. (Rating A on ABDC list)

- **Tan, Y.**, Orman, W. H., Pavlopoulos, V., Pham, H., & Patnayakuni, R. (2026). Transforming Student Data Into Timely Interventions: A Dynamic Bayesian Network Decision Support System. *International Journal of Knowledge Management*, 22(1), 1-27. (Rating B on ABDC list)

- **Tan, Y.**, Lu, Y., and Wang, L. (2025), Flight Delay Dynamics: Unraveling the Impact of Airport-Network-Spilled Propagation on Airline On-Time Performance. *Decision Support Systems*, 114494. (Rating A* on ABDC list)

- Geng, H., Wang, J., Su, Z., **Tan, Y.**, and Huang S. (2025): Analysts' initial converage and stock price. *International Review of Financial Analysis*, 97, 103870. (Rating A on ABDC list, Ranked #4 in Finance by Google Scholar)

- Pham, H., **Tan, Y.**, Singh, T., Pavlopoulos V., and Patnayakuni, R. (2024): A multi-head attention-like feature selection approach for tabular data. *Knowledge-Based Systems,* 301, 112250. (Rating A on ABDC list, Ranked #2 in Fuzzy Systems by Google Scholar)

- **Tan, Y.**, Shenoy, P. P., and Sherwood, B. (2024): A naïve Bayes regularized logistic regression model for low-dimensional classification. *International Journal of Approximate Reasoning*, 109239. (Ranked #10 in Fuzzy Systems by Google Scholar)

- **Tan, Y.**, Shenoy, P.P., Sherwood, B., Gaddy, M., Oehlert, M., and Shenoy, C. (2024): Bayesian network models for PTSD screening in veterans. *INFORMS Journal on Computing*, 36(2), 495-509. (UTD24 list)

- **Tan, Y.**, and Shenoy, P.P. (2020): A bias-variance based heuristic for constructing a hybrid logistic regression-naive Bayes model for classification. *International Journal of Approximate Reasoning*, 117, 15-28. (Ranked #10 in Fuzzy Systems by Google Scholar)

- **Tan, Y.**, Shenoy, P.P., Chan, M.W., and Romberg, P.M. (2016): On construction of hybrid logistic regression-naïve Bayes model for classification. In *Proceedings of Machine Learning Research: Conference on Probabilistic Graphical Models* (Vol. 52. pp. 523-534).

Working Papers

- **Tan, Y.**, Xi, Y., and Arikan, M.: Partisan Inventory: CEO-US President political ideology alignment and Inventory Management. Reject and resubmit at *Manufacturing & Service Operations Management*.

- Yi, X., **Tan, Y.** Leng, Z.: Living too close to work? The curvilinear effect of commuting time on job satisfaction. Under review at *International Journal of Human Resource Management*.

- Pavlopoulos V., Pham, H., Bhatt, P., **Tan, Y.**, Patnayakuni, R.: decp: An R Package for Multiple Change Point Analysis of Multivariate Data for Changes in the Covariance Structure. Under review at *The R Journal*.

- **Tan, Y.**, Gong K., Wang, Lu., Lu Y., Han Z., Zhou, X., Zhang, C., Zou, J.: Integrating Multimodal Data for Personalized Nutritional Recommendations in Chronic Disease Management. Under review at *Health Promotion International*.

Work in Progress

- Yu, X, **Tan, Y.**, Tang, Y., Bao, K: Collaboration Conundrum: Unraveling CEO Hubris and Alliance Formation.

PRESENTATIONS

When does the emergency department need help the most? Identifying trigger conditions of the full capacity protocol

Orlando, FL, November 2025   DSI Annual Conference

Unraveling the impact of airport-network-spilled propagation on airline on-time performance

Atlanta, GA, October 2025   INFORMS Annual Meeting
Seattle, WA, October 2024   INFORMS Annual Meeting

A Bayesian network model for early detection of students' course failure
Phoenix, AZ, October 2023   INFORMS Annual Meeting

A new Bayesian network-based approach for PTSD detection
Phoenix, AZ, November 2019   INFORMS Annual Meeting

Impact of political ideology alignment on inventory management decision
Houston, TX, November 2017   INFORMS Annual Meeting
Houston, TX, May 2018   POMS Annual Meeting

On construction of hybrid logistic regression-naive Bayes model for classification
Lugano, Switzerland, September 2016   PGM 2016 Conference

A new model for evaluating NBA players
San Francisco, CA, November 2014   INFORMS Annual Meeting

EXTERNAL FUNDING AND COLLABORATIONS

– Lockheed Martin Space Systems, Sunnyvale, CA
– Veterans Affairs Eastern Kansas Health Care System, Leavenworth, KS

TEACHING EXPERIENCE

Instructor at the University of Alabama in Huntsville
- MSC 641 – Advanced Analytics
- MSC 450/550 – Intro Analytics & Programming
- MSC 287 – Business Statistics I

Instructor at the University of Kansas
- SCM 415 – Data Analysis and Forecasting

Guest Lecturer at the University of Kansas
- DSCI 920 – Probability for business research

WORKING EXPERIENCE

UC College of Pharmacy   Cincinnati, Ohio
Research Assistant   February 2013 to March 2014
- Large-database manipulation, statistical analysis for projects in the areas of end stage renal disease, kidney dialysis, and transplantation.

AWARDS

John O. Tollefson Best Paper Award   University of Kansas, 2020

SOFTWARE EXPERTISE

- SAS, R, Python, MATLAB, SQL, STATA, HUGIN, GAMS, AMPL, Arena, Crystal Ball