My research mainly focuses on the development and application of advanced statistical methods (e.g., machine learning techniques) and psychometrics tools (e.g., item response theory) to answer organizational questions. Machine learning (ML) techniques are relatively new to organizational researchers even though they have been widely applied and have changed our life in many aspects. My research involves applying ML techniques in our field, for instance, using ML techniques to examine trajectories and dynamics overtime. Another focus of my research is to improve feasibility of ML techniques to organizational researchers. For instance, how can we report ML results to make our results replicable and to improve transparency?

Min, H., Peng, Y., Shoss, M., & Yang, B. (2021). Using machine learning to investigate the public's emotional responses to work from home during the COVID-19 pandemic. *Journal of Applied Psychology*.

Guo, F.*, Sun, T.*, Gallagher, C. M.*, Tavoosi, S.*, & Min, H. (under review) Introduction of natural language processing for human resources researcher and practitioners (Title rephrased for blind review). *Human Resource Management Journal*.

Min, H., Guo, F.*, Sun, T., Liu, M., & Oswald, F. (Manuscript writing). Replicate the procedure in black box: Best practices of reporting machine learning results in organization research.

Besides machine learning techniques, I am also passionate about psychometrics (e.g., item response theory) and measurement, such as, how do the applications of item response theory evolved overtime in organizational research? how do researchers decide when to use which scale?

Min, H., Matthews, R., Parsons, R.*, Wayne, J., & Barnes-Farrell, J. (2019). A comparison of WFC and FWC measurements using classical test theory and item response theory. *Journal of Business and Psychology*.

Min., H., Pavisic, I.*, Howald, N.*, Highhouse, S., & Zickar, M. (2019). A Systematic Comparison of Three Sadism Measures and Their Ability to Explain Workplace Mistreatment Over and Above the Dark Triad. *Journal of Research in Personality, 82. https://doi.org/10.1016/j.jrp.2019.103862*

Min, H., Zickar, M. J., & Yankov, G.P. (2018). Understanding item parameters in personality scales: An explanatory item response modeling Approach. *Personality and Individual Differences, 128,* 1-6.

Foster, G. C., Min, H., & Zickar, M. J. (2017). Review of item response theory practices in organizational research: Lessons learned and paths forward. *Organizational Research Methods*, 1094428116689708.

Additionally, I am interested in the intersection between ML techniques/IRT and subgroup differences. Although a diverse workplace environment is highly advocated, there are still many barriers that prevent the advancement of women, African Americans, Latinos, and other minorities in the professional realm. Described as the "glass ceiling," the barrier women and minorities face have become increasingly subtle. My research interests focus on detecting subtle discriminations using advanced techniques (e.g., natural language processing algorithms to

detect subtle discrimination in language or item differential functioning to examine whether and how people in different sex/age/ethnicity groups respond differently to a scale).