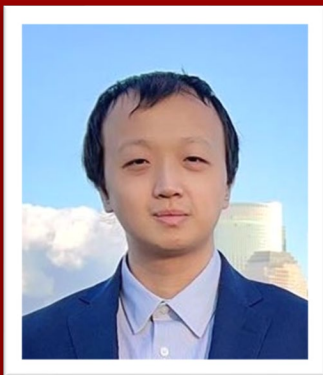**RUTGERS HEALTH**

NJ acts

Join us for the NJ Acts Biostatistics and Epidemiology Workshop Series:

Uncertainty Quantification for Predictive Models: Conformal Prediction and Calibration

Thursday, January 22, 2026, 12:00pm – 1:30pm over Zoom

This workshop will provide an introduction to uncertainty quantification for predictive models, with a focus on conformal prediction and calibration. In the first part, we will introduce conformal prediction, a distribution-free framework for constructing prediction sets that guarantee coverage of the true outcome at a user-specified confidence level. While conformal prediction provides strong statistical guarantees, large or ambiguous prediction sets can be difficult to interpret in practice. We will present new nonconformity scores designed to prioritize singleton prediction sets, which increase the frequency of unambiguous predictions, while maintaining valid coverage and minimal impact on average set size. In the second part, we will turn to calibration of probabilistic classifiers, which assesses whether predicted probabilities are reliable. We will introduce evaluation metrics for calibration and present statistical testing procedures that can certify whether a model is significantly miscalibrated.

Presenter:

Yan Sun, PhD
Assistant Professor in the Department of Mathematical Sciences at NJIT

Target Audience:

Researchers or Practitioners who are interested in understanding or communicating uncertainty of predictive machine learning models.

[Register Here to receive Zoom Link](#)

Please register using the link or scanning the QR code
For access to our Canvas page and all our workshop recordings, contact natale.mazzaferro@rutgers.edu