Machine Learning for Biological Networks

Biological systems are complex networks of genetic interactions and metabolism. Sensing technologies have allowed the external measurement of transcription levels, proteins, and metabolites. The challenge now is to use the measurements to help untangle the interactions in cells and organisms.

Short Bio

Julie Dickerson is the David C Nicholas Professor in Electrical and Computer Engineering. Her research program focuses on the application of data science to bioinformatics; this has led to successful collaborations with faculty across ISU. She has played a key role in the Bioinformatics and Computational Biology (BCB) Program as a past chair and as a core curriculum developer. Her development of the core systems biology course for all BCB students has enabled students to learn the basics of network science and data science as applied to biological systems. She has also served as an NSF Program Officer in the Advances for Biological Informatics in the BIO directorate.