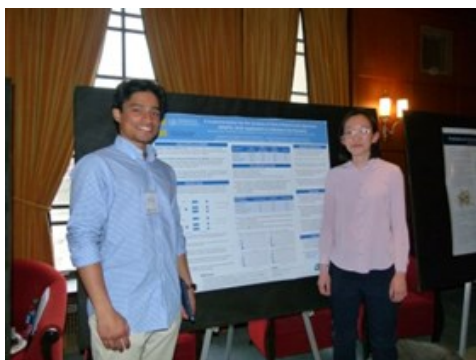


# May 2018 d3lab News

## MSSISS Presentations

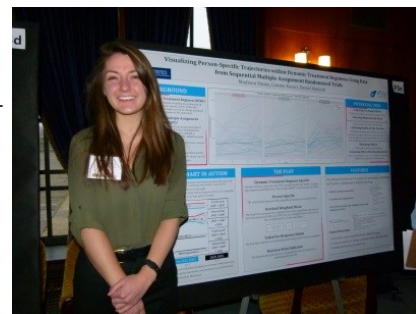
The Michigan Student Symposium for Interdisciplinary Statistical Sciences (MSSISS), an annual event to promote interdisciplinary research among graduate students and faculty, was held in April this year. The event is orga-



**Tahmeed Tureen (undergrad) mentored by Billie Nahum-Shani and Jamie Yap (pictured)**

nized by graduate students in the Biostatistics, Electrical Engineering & Computer Science, Industrial & Operations Engineering, Statistics and the Survey Methodology Department at the University of Michigan. Members of the d3lab who presented posters or gave

talks during the two day symposium were: Brook Luers, Tim NeCamp, Tuo Wang, Blake Wagner, Tahmeed Tureen and Madison Stoms.



**Maddie Stoms (undergrad) mentored by Daniel Almirall**

Tim NeCamp was awarded the Best Speed Oral Presentation this year at MSSISS with his presentation titled "Predicting Mood Using Multivariate Mobile Sensor Data Streams for Medical Interns." The talk presented the critical need to understand the temporal dynamics of depression using real-time objective measures. The Intern Health Study (IHS) seeks to identify predictors of depressive symptoms by following a large cohort of medical interns and using mobile technology to measure:



**Tim NeCamp (GSRA) mentored by Zhenke Wu, QMP Faculty Associate, and Daniel Almirall**

• self-reported mood scores (1-10) • minute level activity data  
• nightly sleep time and duration • heart rate

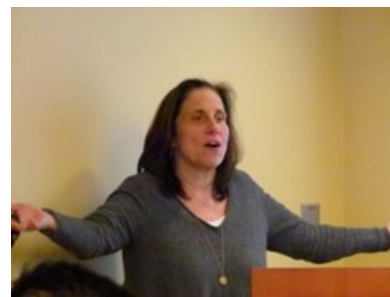
To improve the understanding of depression, and inform future interventions, we aim to discover which past variables are most predictive of an intern's mood. We developed a variable selection method that is able to determine which variables, at which time lags, are most predictive of current mood. Our method is advantageous because it: (1) Performs a truncation in order to eliminate irrelevant time lags and (2) Takes advantage of the tem-

## Brainstorm on March 30



Noelle Leonard, a Senior Research Scientist at the NYU Rory Meyers College of Nursing, visited the d3lab to Brainstorm on a novel, pilot tested *Calm Mom* intervention to help the approximately 70% of women enrolled in substance use treatment who have young children (Jones et al., 2015). Mothers with substance use problems are at high risk for maltreating their children. (Continued on next page)

Engaging in effective parenting while managing substance use treatment goals can be challenging for MSU who are typically coping with multiple psychosocial stressors, particularly poverty and single parenthood, coupled with deficits in effective emotional regulatory abilities and positive parenting practices. Combined with in-person, counselor-delivered sessions, the *Calm Mom* intervention, by leveraging the unique opportunity wireless devices and mobile technology offer, delivers emotional regulatory and parenting skills and strategies to mothers in their daily life at moments when they need support.



Noelle Leonard, NYU Rory Meyers College of Nursing.