Sanja Avramovic, PhD

Assistant Professor, Department of Health Administration and Policy
Assistant Professor, Institute for Biohealth Innovation

Education

PhD, Information Technology, George Mason University

Key Interests

Data analytics | Health Informatics | Data mining | Predictive modeling | Machine learning

CONTACT

Phone: 703-993-4548 | Email: savramov@gmu.edu
Website: http://mason.gmu.edu/~savramov/

SELECT PUBLICATIONS

- F. Alemi *et al.*, Using social determinants of illness in electronic health records to predict suicide. *Health Services Research* (2020).
- S. Avramovic *et al.*, The Side-Out Foundation metastatic breast cancer database, an open-access portal for multi-omics molecular data and more. Reports of the Machine Learning and Inference Laboratory. *MLI* 18-2 (2018).
- H. Min *et al.*, A comprehensive multimorbidity index for predicting mortality in intensive care unit patients. *Journal of Palliative Medicine* 20(1), 35-41 (2017).

Research Focus

A common theme in my research include the investigation of cutting-edge analytic techniques, coupled with a search for the most effective ways to leverage the power of big data in health information systems in order apply these approaches to difficult problems in health care. I work in a research field in which studies have long been dominated by conventional offline research approaches, and I am consistently finding applications of big data which, when used together with the right techniques, answer standing questions in ways which are either previously unanswered or answered in a much more refined way than in prior work. Much of my research focuses on predictive modelling; however, the field is rich with problems which benefit from the introduction to algorithmic techniques which have previously not been heavily utilized.

Current Projects

- In the project "Component A: Impact of Community Factors on Geographic Disparities in Diabetes and Obesity Nationwide", I examine the relationship between key community factors pertaining to the food and housing environment and three outcomes: diabetes, obesity and discordance between county-level diabetes and obesity prevalence, an approach that allows us to examine unique contextual risk factors for each condition.
- The project "Substance Abuse and Mental Health Services Agency (SAMHSA): Virginia Screening, Brief Intervention, and Referral to Treatment" is focused on identifying substance misuse as it is emerging so that an appropriate intervention can be offered to assist people in decreasing their risk of developing a Substance Use Disorder (SUD), as well as decreasing the impact of negative consequences linked to substance use.