Arman Oganisian

PhD Candidate

Last Updated: April 2019

Philadelphia, PA, USA

github.com/stablemarkets

stablemarkets.netlify.com

aoganisi@upenn.edu

About me

I am a biostatistics PhD Candidate at the University of Pennsylvania and an Associate Fellow at the Leonard Davis Institute for Health Economics. My research centers around developing flexible Bayesian models for solving various causal inference problems arising in health economics.

Research

- Dirichlet process mixtures
- Time-varying confounding
- Medical cost/cost-effectiveness
- Censored/incomplete costs.

Skills

Python

Linux

Git,GitHub

C++,Rcpp

LaTeX

R

(*)[The skill scale is from 0 (Fundamental Awareness) to 6 (Expert).]

Education

2016- Pres. PhD, Biostatistics — Philadelphia, PA
University of Pennsylvania
Advisors: Dr. Jason A. Roy and Dr. Nandita Mitra.

2016-2018 MS, Biostatistics — Philadelphia, PA
University of Pennsylvania
Thesis: Joint Bayesian Hierarchical Model for Healthcare Utilization.

2009-2013 BA, Quantitative Economics — Providence, RI
Providence College
summa cum laude; Mathematics minor;

Industry Experience

2013-2016 Senior Analyst — Boston, MA
Analysis Group

Worked in the health economics and outcome research (HEOR) practice. Conducted statistical analyses for large pharmaceutical companies - wrote analysis plans, supervised analysts coding analyses, lead client calls, drafted abstracts and manuscripts.

2012-2012 Equity Derivatives Analyst — New York, NY
Jefferies & Co.

Summer internship at an equity trading floor. Built statistical models predicting probability of mergers and spin-offs.

Professional Appointments

2017-Pres. Associate Fellow, Leonard Davis Institute of Health Economics.

Methodology Publications

2019 *ChiRP: R Package for Chinese Restaurant Process Mixtures for Regression and Clustering*.
Arman Oganisian. *Journal of Open Source Software*.

2018 *A Bayesian latent class approach for EHR-based phenotyping*.
Rebecca A. Hubbard, Jing Huang, Joanna Harton, Arman Oganisian, Grace Choi, Levon Utidjian, Ihuoma Eneli, L. Charles Bailey, Yong Chen. *Statistics in Medicine*.

Applied Publications

2019 *Racial/Ethnic Variation in Use of Ambulatory and Emergency Care for Atopic Dermatitis Among U.S. Children*.
Joy Wan, Arman Oganisian (co-first), Andrew Spieker, Ole Hoffstad, Nandita Mitra, David Margolis, Junko Takeshita. *Journal of Investigative Dermatology*.

2019 *Development of a Classifier to Identify Patients With Probable Lennox-Gastaut Syndrome in Health Insurance Claims Databases via Random Forests*.
F. Vekeman, J. E. PiÃśa-Garza, W. Y. Cheng, E. Tuttle, P. GiguÃĺre-Duval, Arman Oganisian, J. Damron, M. S. Duh, V. Shen, T. B. Saurer, G. D. Montouris, J. Isojarvi. *Current Medical Research and Opinion*.

2018 *Impact of industry payments on prescribing patterns for tumor necrosis factor inhibitors among Medicare beneficiaries*.
Partik Singh, Howard Forman, Adewole S. Adamson, Arash Mostaghimi, Alexis R. Ogdie, Arman Oganisian, John S. Barbieri. *Journal of General Internal Medicine*.

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Invited Talks

2020 An all-in-one Bayesian nonparametric model for medical cost prediction, clustering, and causal estimation
International Conference on Health Policy Statistics. San Diego, CA.

2019 Bayesian nonparametric model for zero-inflated outcomes
Joint Statistical Meetings. Denver, CO.

Contributed Talks

2018 A Bayesian Nonparametric Method for Zero-Inflated Data with Applications to Medical Costs
Joint Statistical Meetings. Vancouver, BC, Canada.

2017 A Parametric Bayesian Approach to Estimating Causal Treatment Effect on Medical Costs.
Joint Statistical Meetings. Baltimore, MD.

Teaching

2019 Guest Lecture for BSTA670 Programming and Computation for Biomedical Data Science: *Bayesian Computation: MCMC Sampling, Integration, and Approximation Methods*.

2018 JSM short course: Introduction to Bayesian Nonparametric Methods for Causal Inference. Interactive Dirichlet Process tutorial with R Shiny. https://stablemarkets.shinyapps.io/dpmixapp/

2018 Guest Lecture for BSTA622 Inference II: *Bayesian Motivations of Penalized Regression and the EM Algorithm*.

2018 Instructor, Causal Inference Summer Institute. Taught computing session on instrumental variables and 2SLS in R.

2018 TA, HPR604 Introduction to Statistics for Health Policy.

2018 TA, BSTA660 Design of Observational Studies.

Professional Activities

2017-Pres. Student Representative, UPenn biostatistics MS/PhD curriculum committee.

2019 Chair, Bayesian Approaches to High Dimensional Data. Contributed Papers. Eastern North American Region. Philadelphia, PA.

2017 Chair, New Ideas in Causal Inference. Poster Session. Eastern North American Region. Washington, D.C.