

Lauren N. Burns

CONTACT INFORMATION

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RESEARCH INTERESTS

Survival analysis, non-proportional hazards, microarray gene expression data analysis, high-dimensional data, dimension reduction.

EDUCATION

Temple University, Philadelphia, Pennsylvania

Ph.D., Statistics, August 2017

- Co-Advisors: Cheng Yong Tang, Ph.D, and Karthik Devarajan, Ph.D. (Fox Chase Cancer Center)

M.S., Statistics, May 2013

Muhlenberg College, Allentown, Pennsylvania

B.S., Mathematics and Economics, May 2011

ACADEMIC & TEACHING EXPERIENCE

Temple University, Philadelphia, Pennsylvania

Assistant Professor

July 2017 - Present

Instructor

January 2016 - June 2017

Graduate Student

August 2011 - August 2017

Includes current Ph.D. research, Ph.D. and Masters level coursework.

- Teaching Assistant: Business Calculus (7 semesters); Primary Instructor for Business Statistics (multiple semesters).
- Related Coursework: Probability and Statistical Theory I, II; Statistical Methods I, II, III; Mathematics for Statistics; Advanced SAS Programming; Bayesian Genetics; Clinical Trials; Data Mining; Stochastic Processes; Advanced Statistical Inference I and II; Statistical Computing; Applied Multivariate Analysis.

Research Assistant

August 2013 - May 2017

Consultant for the Center for Statistical Analysis, where I manage data, conduct analyses, and create reports for various research projects.

- Worked with the U.S. State Department on a project analyzing drug use in Afghanistan.
- Worked with faculty from the MIS department on a project using PLS Path Modeling to study the complex relationship between general and technological self-efficacy, civic engagement and entrepreneurial intentions in students.

Muhlenberg College, Allentown, Pennsylvania

Independent Research, Auction Theory

January 2011 - May 2011

Performed research on the newly emerging online penny auctions

- Bidder behavior and auction outcomes were analyzed as various assumptions underlying the auction were changed, with the ultimate goal being to identify the Nash equilibrium bidding strategies. The results were presented at the Garden State Undergraduate Mathematics Conference in April 2011

Lehigh Valley Health Network (LVHN), Allentown, Pennsylvania

Summer Research Scholar

May - August 2010

Worked with the LVHNS Information Services Department and Lehigh University to investigate the efficiency of clinical information flow in a Perinatal Information System.

- PUBLICATIONS
- Das, K., Afriyie, P., Spirko, L. "A Semiparametric Bayesian Approach for Analyzing Longitudinal Data from Multiple Related Groups". *International Journal of Biostatistics*, 2015. <http://www.degruyter.com/view/j/ijb.ahead-of-print/ijb-2015-0002/ijb-2015-0002.xml>
- CONFERENCE PRESENTATIONS
- "Unified Methods for Variable Selection in Large-Scale Genomic Studies with Censored Survival Outcomes," Joint Statistical Meetings, Baltimore MD, July 2017.
 - "Supervised Dimension Reduction for Large-Scale Genomic Data with Censored Survival Outcomes Under Possible Non-proportional Hazards," Joint Statistical Meetings, Vancouver, July 2018.
 - "Methods for Handling Correlated Covariates in Integrative Genomics Analysis," Joint Statistical Meetings, Denver, July 2019.
- HONORS AND AWARDS
- CAFSBM Award for Excellence in Teaching by a Doctoral Student (2013).
 - JSM 2017 Student Paper Award, Section on Statistical Learning and Data Science.
 - FSBM PhD Research Competition - First Place (October 2017).
- TEACHING EXPERIENCE
- Temple University, Philadelphia, PA **August 2011 - Present**
- Undergraduate Courses: STAT 1001 Quantitative Methods for Business I; STAT 1102 Quantitative Methods for Business II; STAT 1902 Honors Quantitative Methods for Business II; STAT 2103 Statistical Business Analytics; STAT 0827 Statistical Reasoning and Games of Chance.
 - Graduate Level Courses: STAT 5401 Foundations for Data Analytics; STAT 5001 Quantitative Methods for Business; STAT 5607 Advanced Business Analytics; STAT 5801 Statistical Analysis for Management.
- Lasalle University, Philadelphia, PA **August 2013 - December 2015**
- Adjunct Instructor: Intermediate Algebra and Applied Business Calculus
- Delaware County Community College, Media, PA **May 2013 - July 2015**
- Adjunct Instructor: Intermediate Algebra, Modern College Mathematics, Intro to Stat and Prob, Statistics I
- COMPUTER SKILLS
- Statistical Software: R; some experience with SAS.
 - Languages: Python, some use of Linux shell scripts.