APRIL J HARRY

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EDUCATION

PhD **Purdue University**, Statistics — Expected Dec 2017
Advisor: Olga Vitek, Northeastern University
Thesis title: "Design and statistical analysis of mass spectrometry imaging experiments"

MS **Purdue University**, Applied Statistics — May 2012

BS **Xavier University of Louisiana**, Mathematics — May 2010
Double Concentration in Statistics and Philosophy
Summa Cum Laude

HONORS AND AWARDS

Purdue University StatCom Community Service Award — 2015

George Washington Carver Fellowship — 2010-2015
Awarded by Purdue University Graduate School to high-achieving students accepted to a Ph.D. program from Historically Black Colleges and Universities, Hispanic-serving institutions, or Tribal colleges

Oracle Infinite Possibilities College Scholarship — 2010
Awarded to underrepresented minority women displaying merit and an intention to study and pursue a career in mathematics or statistics

PUBLICATIONS

Harry, April; Bemis, Kylie; Guo, Dan; Thomas, Mathew; Lanekoff, Ingela; Stenzel-Poore, Mary; Stevens, Susan; Laskin, Julia; Vitek, Olga. Statistical detection of differentially abundant ions in mass spectrometry-based imaging experiments with complex designs. *International Journal of Mass Spectrometry.* Under review.

Bemis, Kylie; **Harry, April**; Eberlin, Livia; Ferreira, Christina; van de Ven, Stephanie; Mallick, Parag; Stolowitz, Mark; Vitek, Olga. May 2016. "Probabilistic segmentation of mass spectrometry images helps select important ions and characterize confidence in the resulting segments." *Molecular & Cellular Proteomics.* 15(5):1761-72.

Bemis, Kylie; **Harry, April**; Eberlin, Livia; Ferreira, Christina; van de Ven, Stephanie; Mallick, Parag; Stolowitz , Mark; Vitek, Olga. July 2015. "Cardinal: An R Package for Statistical Analysis of Mass Spectrometry-Based Imaging Experiments." *Bioinformatics (Oxford, England)*. 31 (14): 2418 2420.

Kaufman, J.; Lessler, J.; **Harry, April J.**; Edlund, S.; Hu, K.; Douglas, J.; Thoens, C.; Appel, B.; Käsbohrer, A.; Filter, M. 2014. A likelihood-based approach to identifying contaminated food products using sales data: performance and challenges. *PLOS Computational Biology*. 10(7): e1003999.

PUBLICATIONS, CONT.

Harry, April; Troisi, J., Aug 2014, STAT*tr@k*: Service Oriented Statistics. *AMSTATNEWS*. p 19.

Harry, April J., Kent, C., Kocic, V., March 2012, Global behavior of solutions of a periodically forced Sigmoid Beverton-Holt model. *Journal of Biological Dynamics*. 6(2): 212-234.

PRESENTATIONS AND TALKS

My Experience as a PhD Student Mar 2017
Minority Access to Research Careers (MARC)
Xavier University of Louisiana, New Orleans, LA, USA

Statistical Design and Analysis of Mass Spectrometry Imaging Experiments Jun 2016
Enhancing Diversity in Graduate Education (EDGE)
Purdue University, West Lafayette, IN, USA

Biomedical applications of Cardinal: a mass spectrometry imaging toolbox for statistical analysis Jun 2016
American Society for Mass Spectrometry
San Antonio, Texas, USA

Statistical testing for differentially abundant ions in mass spectrometry imaging experiments Mar 2015
United States Human Proteome Organization (US HUPO)
Tempe, Arizona, USA

A likelihood based method for accelerating investigation of food-borne disease outbreaks: an internship experience Sep 2013
Exploring Statistical Sciences Research Seminar, Purdue University

A (very) brief introduction to graphical models Jul 2013
MSRI-Undergraduate Program Workshop
Mathematical Sciences Research Institute, Berkeley, California, USA

SERVICE AND OUTREACH

Director, Purdue University StatCom Aug 2014-Aug 2015
Acted as lead coordinator for service-oriented statistical consulting group

Volunteer Consultant, Purdue University StatCom 2012-2016
Designed experiments and surveys, analyzed and visualized data for government and non-profit groups

TEACHING EXPERIENCE

Teaching assistant, Purdue University Jan 2015-May 2015
Course: STAT 301: Elementary Statistical Methods
Instructed lab sections using the SPSS statistical computing software, graded exams and lab assignments, held office hours

EMPLOYMENT

Research Technician, College of Science 2016-Present
Northeastern University, Boston, Massachusetts, USA

Visiting Scientist, College of Science 2015-2016
Northeastern University, Boston, Massachusetts, USA

Peer Mentor, Enhancing Diversity in Graduate Education (EDGE) 2014
Harvey Mudd College, Claremont, California, USA
Directly mentored fourteen underrepresented, female students preparing for graduate programs in the mathematical sciences; Facilitated daily homework problem sessions; Organized community-building activities

Summer Intern, IBM Almaden Research Center 2013
San Jose, California, USA
Public Health Research Team, manager James Kaufman; Analyzed the performance of a likelihood-based method for determining contamination sources of food-borne illness epidemics

Private Tutor, Purdue Disabilities Resource Center 2012-2013
Provided assistance to students learning Algebra, Trigonometry, and Calculus who have been identified as having learning disabilities

Student Researcher, Minority Access To Research Careers 2008-2010
Xavier University of Louisiana, New Orleans, Louisiana, USA
Worked with a faculty mentor to model populations using difference equations
Project Title: "Dynamics of the Sigmoid Beverton-Holt Population Model"

PROFESSIONAL DEVELOPMENT

Hierarchical Bayesian Modeling and Analysis for Spatial Data 2014
Joint Statistical Meetings, Short Course

MALDI Imaging Mass Spectrometry 2014
American Society for Mass Spectrometry, Short Course

JSM Diversity Mentoring Program 2013
Joint Statistical Meetings 2013, Montreal, Quebec, CA

Responsible Conduct of Research Certification, 2012
Collaborative Institutional Training Initiative

Enhancing Diversity in Graduate Education (EDGE) 2010
North Carolina State University, Raleigh, North Carolina, USA

MEMBERSHIPS AND AFFILIATIONS

Greater Boston Mass Spectrometry Discussion Group
US Human Proteome Organization
American Statistical Association
Mu Sigma Rho
Purdue Black Graduate Student Association