

Elizabeth Eisenhauer

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EDUCATION

The Pennsylvania State University, State College, PA

Doctorate of Philosophy, Statistics, August 2017 –

- University Graduate Fellowship
- Graduate Assistantship

The College of New Jersey (TCNJ), Ewing, NJ

Bachelor of Arts, Mathematics, Specialization: Statistics, August 2013 – May 2017

- GPA: 3.77/4.00
- Magna cum laude
- Departmental Honors
- Phi Beta Kappa Honors Society
- Pi Mu Epsilon Mathematics Honors Society
- President of TCNJ Environmental Club
- Vice President of TCNJ's Veg Life Club

EXPERIENCE

RESEARCH

Laboratory Assistant, Department of Statistics, The Pennsylvania State University, State College, PA
June 2017 – present

Advisor: SCRiM Researcher Murali Haran

- SCRiM project involving development of statistical methods for analyzing non-Gaussian time series data, with applications to precipitation and storm surge time series

Honors Research, Department of Mathematics, TCNJ, Ewing, NJ

June 2016 – present

Advisor: Dr. Michael Ochs

- Creation of structural equations and graphical models to understand the limits of learnability of cell signaling networks based on high-throughput biological measurements with a focus on cell signaling networks in head and neck squamous cell carcinoma
- Utilized an outlier analysis technique with R statistical software to produce binary estimators of receptor activity and used the Wilcoxon signed rank test to compute values between 0 and 1 reflective of the strength of evidence of transcription factor activity based on gene expression data
- Further research slated to include adding mutation data on the signaling proteins in the network
- Presented at TCNJ Mentored Undergraduate Summer Experience 2016 poster session
- Presented a poster at the 2017 Eastern North American Region (ENAR) International Biometric Society Spring Meeting

PROFESSIONAL

Graphic Designer, TCNJ Office of Student Activities, Ewing, NJ

September 2014 – May 2016

- Consulted with faculty and student organizations on how best to meet their design goals
- Completed individual graphic design projects and packages (logos, posters, t-shirt designs, and murals)

Operations Intern, TerraCycle, Inc., Trenton, NJ

December 2015 – April 2016

- Analysis of shipping operations through manipulation of Excel spreadsheets
- Improvement of zero-waste office collection program

Statistics Project Manager, The Rainbird Foundation, Madison, WI

December 2014 – October 2015

- Compilation and analysis of child abuse data from across the United States
- Discovery of the importance of understanding data generation to analyze data well

Volunteer, South Jersey Land and Water Trust, Glassboro, NJ

August 2014

- Record and submission of GPS location data on invasive plant species to New Jersey Invasive Species Strike Team
- Administration of educational information

Mathematics Tutor, Seaville, NJ

September 2012 – June 2013

- Provision of Algebra and Geometry tutoring services to a student attending Ocean City High School

Volunteer, The Wetlands Institute, Stone Harbor, NJ

June – August 2008

- Presentation of educational children's programs about sea life
- Daily upkeep and care of live animal exhibits

SKILLS AND CERTIFICATIONS

Base Certification for SAS 9, July 2015

Working knowledge of R, SAS, Microsoft Office Suite, Adobe Creative Suite, HTML, and CSS

Basic knowledge of SPSS, Minitab, and MatLab

PROFESSIONAL AFFILIATIONS

ENAR International Biometric Society. February 2017 – present

American Statistical Association. August 2014 – present