Elizabeth Eisenhauer

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**EDUCATION**

**The Pennsylvania State University**, State College, PA

Doctorate of Philosophy, Statistics, August 2017 –

* Distinguished Graduate Fellow, August 2017 –
* Graduate Assistant, May 2017 – August 2017

**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