Elizabeth Eisenhauer

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**EDUCATION**

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

Bachelor of Arts, Mathematics; Specialization: Statistics; Minor: Graphic Design, May 2017 (expected)

* GPA: 3.71/4.00
* President of TCNJ Environmental Club
* Vice President of TCNJ Veg Life

**Cape May County Technical High School**, Cape May Court House, NJ

Concentrations: Pre-Engineering and Graphic Design

* GPA: 3.77/4.00
* Member of National Honors Society
* President of Cape May County Technical High School Key Club
* Captain of Varsity Cross Country Team

**EXPERIENCE**

## Research

**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
* Poster to be presented at the 2017 ENAR Spring Meeting

## Professional

**Operations Intern**, TerraCycle, Inc., Trenton, NJ

December 2015 – April 2016

* Analysis of shipment 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 the New Jersey Department of Environmental Protection

**Mathematics Tutor**

September 2012 – June 2013

* Provision of high school level Algebra and Geometry tutoring services

**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 exhibit

**Skills and Certifications**

Base Certification for SAS 9, July 2015

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

Basic knowledge of SPSS, Minitab, and MatLab

**Honors and Awards**

Deans List. Spring 2014, Fall 2014, Spring 2015, Fall 2015, and Spring 2016

TCNJ Merit In-State Scholarship. Fall 2013

Cape May Kiwanis Club Scholarship. Fall 2013

Upper Township Rotary Club Academic Achievement Scholarship. Fall 2013