

# 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