

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: 3.7/4.0
- President of TCNJ Environmental Club

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

Concentrations: Pre-Engineering and Graphic Design

- GPA: 3.8/4.0
- 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