Elizabeth Eisenhauer

4 New Vernon Avenue – Seaville NJ 08230
(609) 247-8104
eisenhe2@tcnj.edu

EDUCATION

The College of New Jersey (TCNJ), Ewing, NJ
Bachelor of Arts, Mathematics; Specialization: Statistics, May 2017 (expected)
- GPA: 3.75/4.00
- 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
- Secretary of Class of 2013
- Co-President of Key Club
- Co-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

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
- Cost analysis of warehouse closure and other 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 through email correspondence and analysis through Excel 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
- Administration of educational materials to community members

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

HONORS AND AWARDS

Dean's List. Spring 2014, Fall 2014, Spring 2015, Fall 2015, Spring 2016, and Fall 2016
TCNJ Merit In-State Scholarship. Fall 2013
Cape May Kiwanis Club Scholarship. Fall 2013
Upper Township Rotary Club Academic Achievement Scholarship. Fall 2013

RELATED COURSES

Design of Experiments (STA 303). To be taken in Spring 2017
Statistics Capstone (STA 498). To be taken in Spring 2017
Real Analysis (MAT 310)
Mathematical Statistics (STA 410)
Foundations of Biological Inquiry (BIO 201)
Independent Research II in Statistics (STA 493)
Sampling and Nonparametric Statistics (STA 304)
Datamining and Predictive Modeling (STA 307)
Probability (MAT 316)

Regression Analysis (STA 305)
Data Management and Analysis (CRI 215)
Linear Algebra: Theory and Application (MAT 205)
Multivariable Calculus (MAT 229)
Calculus B (MAT 128)
Calculus A (MAT 127)
Statistical Inference (STA 215)
Proof Writing Through Discrete Mathematics (MAT 200)

PROFESSIONAL AFFILIATIONS

Member of American Statistical Association. August 2014 – present