Theresa Sheets

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EDUCATION

University of Utah   August 2018-Present
    Mathematics PhD Student, Math Bio Program   3.929 GPA

University of Maryland, Baltimore County (UMBC)   August 2014-May 2018
    Mathematics B.S.   3.884 GPA
    Health Administration and Public Policy: Public Health Track B.A.
        Minors: Computer Science, Biomathematics

RELEVANT SKILLS

Programing Languages: C, C++, Matlab, Python (including tensorflow and keras), SAS, R, Stata, SQL

Coursework: Machine Learning (CMSC 6350), Deep Learning (MATH 7960), Statistics for Technical Majors (STAT 355),
    Design and Analysis of Algorithms (CMSC 441)

RESEARCH PROJECTS

University of Utah   August 2018-Present
  Research Project in Mathematics
  Advisor: Fred Adler, PhD, Tracy Lamb, PhD
    Statistically analysing the relationship between Malaria and EBV coinfection on the immune response to Malaria in R.
    Building a recurrent neural net, a deep learning algorithm to explore cystic fibrosis and diabetes progression with Python.

University of Maryland, Baltimore County   January 2017-August 2018
  Independent Study in Mathematics
  Mentor: Justin Brooks, MD, PhD, Kathleen Hoffman, PhD
    Modeled stress as a dynamical system using previously established models of cardiovascular output with Matlab.
    Utilized Lasso techniques to optimize parameter selection when evaluating model features.
    Compared model results to established measurements and proposed modifications based on underlying biological phenomena.

University of Tennessee, Knoxville   May 2016-July 2016
  National Institute of Mathematical and Biological Synthesis
  Summer Research Experience participant
  Mentors: Suzanne Lenhart, PhD, Megan Rúa, PhD
    Analyzed data using R to examine the relationship between hantavirus and leishmaniasis.
    Built a discrete math model for the spread of hantavirus in a Paraguayan mouse reservoir population.
    Designed a simulation in Matlab to explore the relevance of the age structure in the population.
    Worked in a team of four to design a poster and present a paper summarizing results.

EXPERIENCE

University of Utah   Fall 2018-Present
  Teaching Assistant in Mathematics
  Differential Equations & Linear Algebra
    Led mandatory hour-long lab sections weekly to connect students to applications of the material they saw in class.
    Held regular office and tutoring hours to offer one on one support to students.

University of Maryland, Baltimore County   Fall 2015-Spring 2018
  Teaching Assistant in Mathematics and Computer Science
  Pre-Calculus, Calculus I, II, & III, Linear Algebra, Biomathematics, Computer Science I & II
    Led mandatory hour long discussion sections twice weekly to review relevant material for weekly quizzes.
    Held regular office hours and managed classes of 40 students to reinforce the material presented in lecture.
    Tested and graded student programming assignments in C++.

Johns Hopkins University, Bloomberg School of Public Health   May 2014-July 2014
  Department of Epidemiology, Chronic Kidney Disease in Children Cohort Study
  Research Intern
  Mentor: Alvaro Munoz, PhD
    Analyzed the long term trends of kidney function in children with chronic kidney disease post-transplant using SAS and SQL.
    Utilized SAS to complete data management tasks to more effectively group participants.