

Oscar Fawcett

E-mail: ozfawcett@gmail.com

Phone: (910)-540 0263

Website: oscarfawcett.github.io

Pittsburgh, PA

Last Updated: Oct. 2024

Education

University of Pittsburgh

PhD in Statistics

Pittsburgh, PA

Aug. 2023 - Present

University of North Carolina at Chapel Hill

B.S. in Statistics and Analytics, Data Science Minor

With Distinction

Chapel Hill, NC

Aug. 2020 – Dec. 2022

Cape Fear Community College

Associates in Science

President's Award

Wilmington, NC

Aug. 2017 – Dec. 2019

Statistical Consulting

Biological Science

- Consulted about the experimental design that will be implemented for the analysis of duckweed under various conditions

Oct. 2024

Pittsburgh, PA

Rehabilitation Science

- Advised on how best to analyze data for the study of the factors that impact upper limb use

Oct. 2024

Pittsburgh, PA

Otolaryngology

- Developed statistical models to predict postoperative pulmonary complications in head and neck cancer patients to be used in clinical settings

Sept. 2024

Pittsburgh, PA

Material Science

- Assisted in optimally fitting Brillouin curves and provided insights on how to develop a pipeline to predict alloy compositions with certain desired properties

Aug. 2024

Pittsburgh, PA

Research Experience

Graduate Researcher

Dept. of Statistics

- Supervised by Dr. Chris McKennan, I studied cell free DNA fragment data collected from patient plasma to infer celltype of origin with applications in disease diagnosis

Aug. 2024 - Present

University of Pittsburgh

Undergraduate Researcher

Dayan Lab

- Supervised by doctors Eran Dayan and Nicolas Fraiman, I performed research on the statistical methods used to fingerprint subjects based on fMRI data of their brain

May 2022 - May 2023

UNC-Chapel Hill

Undergraduate Researcher

Dept. of Statistics and Operations Research

- Supervised by Dr. Nicolas Fraiman, I performed research and analysis on graph clustering

Aug. 2021 - Dec. 2021

UNC-Chapel Hill

Publications

Fawcett, O. "Defining Probabilities Over the Prime Numbers." *Pittsburgh Interdisciplinary Mathematics Review*, (Accepted 2024)

Presentations

Title: *Identifying Individuals from Brain Connectivity Networks Using Graph Measures of Similarity* Dec. 2023
Pittsburgh, PA
Presented during the University of Pittsburgh's Department of Statistics Graduate Student Seminar series

Title: *How To Take an Introductory Statistics Course* April 2023
Presented as part of the Cape Fear Community College Lunch and Learn series Wilmington, NC

Title: *How To Take a Math Test* Mar. 2023
Presented as part of the Cape Fear Community College Lunch and Learn series Wilmington, NC

Title: *Identifying Individuals from Brain Connectivity Networks Using Graph Measures of Similarity* Oct. 2022
Presented at the 2022 NanoImpacts Undergraduate Research Symposium Greensboro, NC
First Place Award Winner

Teaching Experience

Teaching Fellow Aug. 2024 - Present
Dept. of Statistics University of Pittsburgh

- Supported course instructors of STAT 1000 and 1223 courses by grading assignments and hosting office hours

Teaching Assistant Aug. 2023 - Aug. 2024
Dept. of Statistics University of Pittsburgh

- Provided assistance to course instructors of STAT 200 and 1223 courses by grading assignments, running recitations, and hosting office hours

Professional Math Tutor Aug. 2018 - May 2021
Learning Lab Cape Fear Community College

- Guided 20+ students weekly through learning objectives in various math courses from algebra and statistics to derivative and integral calculus

Supplemental Instructor Spring 2020, Spring 2021
Learning Lab Cape Fear Community College

- Conducted instructional sessions throughout the semester by leading additional lectures and offering student support in conjunction with ongoing statistics, calculus, and pre-calculus course content

Volunteer Math Tutor Aug. 2019 - April 2020
Nixon Minority Male Leaders Cape Fear Community College

- Assisted students from underrepresented backgrounds in academia by providing individual tutoring sessions for various mathematics courses

Technical Skills

Statistics: generalized linear models, multivariate models, principal component analysis, linear programming, ANOVA, network analysis and algorithms, various machine learning models and techniques such as neural networks, support vector machines, random forests, cross validation, and feature selection.

Software: Python, R, MATLAB, AMPL, Maple, LaTeX, Qualtrics

Activities and Awards

Awards

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| <i>Arts and Sciences Summer Fellowship: \$3000</i> | Aug. 2024 |
| <i>First place, NanoImpacts Undergraduate Research Symposium</i> | Oct. 2022 |
| <i>CFCC President's Award</i> | Dec. 2019 |
| <i>CFCC Academic Achievement Award</i> | April 2019 |

Activities

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| <i>Panel moderator, Keystone State Statistics Symposium</i> | Oct. 2024 |
| <i>Graduate Student Seminar Organizer</i> | Sept. 2023 - Present |
| <i>Tau Sigma Honors Society</i> | April 2022 |
| <i>Phi Theta Kappa Honors Society</i> | Jan. 2018 |