Oscar Fawcett

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Education

University of Pittsburgh

PhD. Statistics

Pittsburgh, PA

Aug. 2023 - Present

University of North Carolina at Chapel Hill

Bachelor of Science, Statistics and Analytics, Data Science Minor

With Distinction

Chapel Hill, NC *Aug.* 2020 – *Dec.* 2022

Cape Fear Community College

Associate in Science President's Award **Wilmington, NC** *Aug.* 2017 – *Dec.* 2019

Research Experience

Department of Statistics

Graduate Researcher

University of Pittsburgh

Aug. 2024 - Present

- Designing inferential models on cell-free DNA data for applications in non-invasive disease diagnostics
- Ad hoc consulting for university faculty, staff, and graduate students on statistical methodologies for projects across disciplines

Dayan Laboratory

UNC-Chapel Hill

Undergraduate Researcher

May 2022 - May 2023

• Investigated network measures of similarity and their performance on identifying 100+ subjects based on their fMRI brain images

Department of Statistics and Operations Research

UNC-Chapel Hill

Undergraduate Researcher

Aug. 2021 - Dec. 2021

• Analyzed the capabilities of graph clustering algorithms on 25+ real-world datasets in comparison to a novel method

Presentations

Title: Estimating Cell Type Proportions of cfDNA Samples Using the Fragmentome

Philadelphia, PA Oct. 2025

Keystone State Statistics Symposium

Reysione State Statistics Symposium

Pittsburgh, PA Dec. 2023

Graph Measures of Similarity *University of Pittsburgh's Department of Statistics Graduate Student Seminar*

Title: Identifying Individuals from Brain Connectivity Networks Using

Title: Identifying Individuals from Brain Connectivity Networks Using Graph Measures of Similarity

Greensboro, NC Oct. 2022

NanoImpacts Undergraduate Research Symposium

First Place Award Winner

Publications

O. Fawcett, "Defining Probabilities Over the Prime Numbers", *Pittsburgh Interdiscip. Math. Rev.*, vol. 2, pp. 49–58, Dec. 2024.

Teaching Experience

Department of Statistics

University of Pittsburgh

Teaching Fellow

Aug. 2024 - Present

- Sole instructor of a 6-week Applied Statistical Methods course over the Summer 2025 term to 23 undergraduate students; developed lecture material, assessments, and course curriculum
- Supported course instructors of Basic Applied Statistics, Applied Statistical Methods, Applied Regression, and Sports Analytics courses by grading assignments, hosting recitations, and holding office hours as sole TA

Department of Statistics

University of Pittsburgh

Teaching Assistant

Aug. 2023 - Aug. 2024

 Assisted the instruction of Basic Applied Statistics and Applied Regression courses by guiding undergraduate students through lab assignments, providing assessment feedback, and creating course material summaries

Learning Lab

Cape Fear Community College

Professional Math Tutor

Aug. 2018 - May 2021

- Guided 20+ students weekly through learning objectives in all offered mathematics and statistics courses at Cape Fear Community College
- Conducted supplemental instruction sessions for Statistical Methods, Calculus I, and Calculus II courses with 25+ students

Nixon Minority Male Leaders

Cape Fear Community College

Volunteer Math Tutor

Aug. 2019 - April 2020

• Assisted students from underrepresented backgrounds in academia by providing individual tutoring sessions for Statistical Methods, Algebra I, Algebra II, and Calculus I courses

Activities and Awards

Awards

| Kenneth P. Dietrich School of Arts and Sciences Summer Fellowship: \$3000 | Summer 2025 |
|---|-------------|
| Henry W. Block Award for Outstanding Junior PhD Student | April 2025 |
| Kenneth P. Dietrich School of Arts and Sciences Summer Fellowship: \$3000 | Summer 2024 |
| First place, NanoImpacts Undergraduate Research Symposium | Oct. 2022 |
| Cape Fear Community College President's Award | Dec. 2019 |
| Cape Fear Community College Academic Achievement Award | April 2019 |

Activities

| Invited panelist, Keystone State Statistics Symposium | Oct. 2025 |
|---|----------------------|
| Department of Statistics Graduate Student Organization Representative | Feb. 2024 - Present |
| Mentor, Lab for Analyzing Pitt Sports (LAPS) | Nov. 2024 - Present |
| Chair and panel moderator, Keystone State Statistics Symposium | Oct. 2024 |
| Graduate Student Seminar Organizer | Sept. 2023 - Present |
| Tau Sigma Honors Society | April 2022 |
| Phi Theta Kappa Honors Society | Ĵan. 2018 |

Skills: Mathematical theory for uncertainty quantification, regression analysis, machine learning, signal processing, empirical Bayes methods, network analysis, factor analysis, numerical optimization

Software: Python, R, MATLAB, MiniTab, JASP, AMPL, Maple, LaTex, Qualtrics