YALE QUAN

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RESEARCH INTERESTS

My research interests include using latent variable and multivariate models to perform actionable research to identify demographic and academic barriers that historically disadvantaged students face with the ultimate goal of providing meaningful information to both administrators and educators on testing practices and latent variables that influence students success.

EDUCATION

Ph.D. Measurement & Statistics, Educational Psychology *Expected 2025*
University of Washington, Seattle WA

Advisor: Chun Wang Ph.D.

M.S. Applied Statistics *December 2020*
California State University Long Beach, Long Beach CA

Thesis Title: A Multivariate Statistical Analysis of Major Change Patterns and Significant Factors That Influence Graduation Rates: A Case Study at California State University, Long Beach

Advisor: Sung Kim Ph.D.

B.S. Criminal Justice *May 2013*
California State University Long Beach, Long Beach CA

TEACHING EXPERIENCE

Lecturer, California State University, Long Beach *2020 - 2021*
Department of Mathematics and Statistics

Course: STAT 108 - Statistics for Everyday Life
Taught lecture and activity sections. Develop lesson plans and homework that encourage growth mindset. Help students develop study and note taking skills. Grade and write exams, and weekly quizzes. Collaborate with a team of lecturers and professors to update course material and discuss learning objectives.

Graduate Teaching Associate, California State University, Long Beach *2018 - 2020*
Department of Mathematics and Statistics

Course: STAT 108 - Statistics for Everyday Life
Taught 5 activity sections with 30 undergraduate students per section. Students enrolled in this course were primarily pre-healthcare majors. Attended lecture 2 times per week and answered questions asked during lecture. Held 2hrs of office hours per week. Wrote weekly lesson plans and solutions for all STAT 108 large lectures. Lesson plans consisted of a combination of think-pair-share, modeling, individual, and group work.

Course: MATH 112B - Essential Algebra B
Taught 4-5 activity sections per semester with 25-30 undergraduate students per section. Students were primarily STEM majors. Attended lecture 2 times per week and answered questions asked during lecture. Held 2hrs of office hours per week. Developed lesson plans that connected the new Geometry material covered in activity to the Algebra covered in lecture. Lessons consisted of a combination of think-pair-share, modeling, individual, and group work.

Course: MATH 104/94 - The Power of Mathematics
Taught 4-5 activity sections per semester with 25-30 undergraduate students per section. Students enrolled in this course were non-STEM majors and came from a diverse population of majors. Held 2hrs of office hours per week. Developed lesson plans and weekly quizzes that reinforced material covered in lecture. Assisted with writing and grading exams. Lesson plans focused on think-pair-share, and group work.

Mentor Supplemental Instructor, California State University, Long Beach *2017 - 2018*
Learning Assistance Center

Course: MATH 115 - Business Calculus
Taught 1 supplemental instruction section. Wrote and implemented lesson plans that reinforced and extends material covered in lecture. Supervised a group of 5 mathematics supplemental instructors and held bi-weekly training's on content, classroom management, and teaching techniques. Held weekly office hours by appointment. Attend weekly lecture. Lesson primarily focused on group work.

Course: MATH 122 - Calculus I
Taught 1 supplemental instruction section. Wrote and implemented lesson plans that reinforced and extends material covered in lecture. Held weekly office hours by appointment. Attend weekly lecture. Lessons were primarily lecture focused with sparse group work.

PROJECTS AND RESEARCH

Master's Thesis
Applied a combination of χ^2 hypothesis testing and correlation analysis to determine if students who changed majors graduate at a significantly different rate than students who did not. A multinomial logistic model was used to identify significant factors that influence a students time to graduation. Fishers Multi-population Linear Discriminate was used to develop a classification system which can be used to classify and predict a students time to graduation.

Detecting and Classifying Suspicious Yelp Reviews
Analysis of the Yelp Dataset written reviews and star ratings using a combination of Tableau, Natural Language Processing (NLP), and Machine Learning.

An Analysis of Sugar Sources and their Effect on Blood Glucose Levels
Designed and implemented a Repeated Measure ANOVA experiment for analyzing the effect of various sugar sources on blood glucose levels of four subjects.

AWARDS AND ACADEMIC ACHIEVEMENTS

Kenneth E. Lindgren Teaching Scholarship Recipient ($4,500) *2019*
Faculty nominated award which recognizes excellence in teaching and a dedication to student success. Presented to one Graduate Teaching Associate per academic year.

Phi Kappa Phi Honor Society (Top Academic 10%) *2019*

PRESENTATIONS AND TALKS

"A Multivariate Statistical Analysis of Major Change Patterns and Significant Factors That Influence Graduation Rates: A Case Study at California State University, Long Beach", *Beyond the First Year*, California State University, Long Beach. November 2020

TECHNICAL SKILLS

Programming Languages	R (proficient), Python(proficient), SQL (competent) SAS (competent), Matlab (competent)
Software & Tools	Microsoft Word (proficient), Excel (proficient), Powerpoint (proficient) LaTeX(proficient), Tableau (proficient)