

Education

- 2021–2023 **University of California, Irvine.**
Master's Degree in Statistics - 3.60 GPA
- 2019–2021 **California State Polytechnic University, Pomona.**
Master's Degree in Mathematics - 3.96 GPA
Emphasis in Applied Mathematics
- 2017–2019 **California State Polytechnic University, Pomona.**
Bachelor's of Science in Mathematics - 3.74 GPA
Emphasis in Applied Mathematics
Degree Honors: Magna Cum Laude
President's List every year
- 2014–2017 **Pasadena City College.**
Associate in Arts, Engineering and Technology,
Associate in Arts, Natural Sciences,
Associate in Science for Transfer, Mathematics AS-T - 3.72 GPA

Publications

- V. V. Nguyen, E. G. Escobar, D. L. Gillen, and D. L. Sultzer, "Neuropsychiatric symptoms and alzheimer's disease risk differences across racial and ethnic groups," in *Alzheimer's Association International Conference*, 2023.
- P. S. Ignacio, C. Dunstan, E. Escobar, L. Trujillo, and D. Uminsky, "Classification of single-lead electrocardiograms: TDA informed machine learning," in *2019 18th IEEE International Conference On Machine Learning And Applications (ICMLA)*, pp. 1241–1246, Dec 2019.

Research Experience

- 2020–2021 **Master's Thesis**, *California State Polytechnic University, Pomona, Pomona, CA.*
Completed Master's Thesis along with my advisor Dr. Risk on the topic of Topological Data Analysis.
- 2018–2019 **McNair Research Project**, *California State Polytechnic University, Pomona, Pomona, CA.*
Worked independently on a research project that models the growth of tumor cells based on different theoretical treatment plans with the supervision of a faculty from the mathematical and statistic department.
- June–July 2018 **Mathematical Sciences Research Institute Undergraduate Program**, *Berkeley, CA.*
Worked on a research project with a team to create a model that can detect Atrial Fibrillation via electrocardiograms to show that topological features can be used to help accurately classify single lead electrocardiograms.

Work Experience

- 2022–2023 **Graduate Student Researcher**, *University of California, Irvine, Irvine, CA.*
Led statistical analysis on multiple research projects aimed at identifying the relationship between race-ethnicity and neuropsychiatric symptoms among patients with Alzheimer's disease, leveraging expertise in data analysis and interpretation to uncover meaningful insights and drive evidence-based decision-making. Delivered statistical consulting services to clients, leveraging advanced analytical and statistical skills to analyze complex data sets, develop models, and interpret results. Communicated project findings to non-statistical individuals through clear, concise presentations and reports.
- 2021–2022 **Teaching Assistant**, *University of California, Irvine, Irvine, CA.*
Lead and organized weekly discussions for groups of 20 - 30 students.
- 2019–2021 **Graduate Teaching Associate**, *California State Polytechnic University, Pomona, Pomona, CA.*
Taught various mathematical and statistical courses to first generation college students. Created weekly lesson plans involving group activities and traditional lecture teaching to enhance students' understanding of the concepts. Graded tests, homework, quizzes, group work, and assignments to provide feedback to students.
- January 2019–August 2019 **Supplemental Instructor**, *California State Polytechnic University, Pomona, Pomona, CA.*
Helped at-risk students from low-income families improved their performance in trigonometry & college algebra. Made weekly lesson plans to help improve students learning. Responsible for upholding a friendly and safe class environment to increase student participation.

Course Taught\TA

- STA 8 Introduction to Bio Statistics
- STA 67 Introduction to Probability & Statistics
- STA 1200 Statistics With Application
- MAT 1060 Trigonometry

Graduate Coursework

Statistics and Probability

- Statistical Computing
- Survival Analysis
- Advance Probability & Statistics Theory
- Statistical Methods III
- Scientific Computing with R
- Introduction to Bayesian Data Analysis
- Introduction to Spatial Analysis
- Multivariate Data Analysis
- Linear Statistical Models
- Applied Regression Analysis

Mathematics

- Real Analysis
- Mathematical Modeling
- Numerical Analysis

Seminar, Talks, and Presentations

- January 15, 2020 **Joint Math Meeting**, *Denver*, CO, MAA Panel.
Participated in an MAA Panel titled "Students' Perspectives on Undergraduate Research Experiences" at one of the biggest math conferences in the world. Elaborate my experience at my REU during my undergrad, inspire and encourage students from different diversity to apply to REU.
- January 19, 2019 **Joint Math Meeting**, *Baltimore*, MD, AMS Special Session Talk.
Title: Detection of Atrial Fibrillation in Electrocardiograms via Persistent homology-based Features.
Gave a special session talk at the largest mathematics conference in the state.
- October 11, 2018 **SACNAS Conference**, *San Antonio*, TX, Poster Presentation.
Title: Detection of Atrial Fibrillation in Electrocardiograms via Persistent homology-based Features.
Delivered a poster presentation at one of the largest STEM conferences in the state.

Conferences Seminars and Workshops Attended

- October 31, 2019 **2019 SACNAS Conference**, *Honolulu*, HI.
Attended keynotes, seminar, and workshop at the 2019 Society for Advancement of Chicanos conference.
- June 6, 2019 **Math Alliance Workshop at Institute for Mathematics and its Applications (IMA)**, *St. Paul*, MN.
Attended a workshop at the University of Minnesota St. Paul from June 6 - 8 2019. This workshop brings students and mentors to learn about opportunities for math science majors in areas outside of pure mathematics.
- November 1, 2018 **Field of Dreams Conference**, *St. Louis*, MO.
The Conference brings together faculty in the mathematical sciences with students from backgrounds underrepresented in those fields. Introduces potential graduate students to graduate programs in the mathematical sciences and professional opportunities in these fields. I received advice on graduate school application and attended seminars on graduate school preparation and expectations and career seminars.

Other Professional Experience

- 2018–2019 **Chapter President of Society for Industrial and Applied Mathematics (SIAM)**.
Lead workshop that helps students apply to REU and graduate school. Invited speakers to come on campus to give talks about their research.
- 2017 – 2019 **Kellogg Honors College**, *California State Polytechnic University, Pomona*, Pomona, CA.
I was selected to participate in honors courses, worked on a Capstone Project to present in my final year, and graduated with honors.
- Summer of 2016 and 2017 **Summer Orientation Leader**, *Pasadena City College*, Pasadena, CA.
Lead workshops and presentations to groups of prospective college students. Delivered lectures in algebra to incoming first-year students to help them prepared for their first year of college. Learned and implemented various aspects such as time management, communication skills, and teamwork to have a smooth and productive work environment.
- 2016–2017 **Pathways Math Tutor**, *Pasadena City College*, Pasadena, CA.
Collaborated with Pasadena City College to provide one-on-one tutoring in algebra, trigonometry, and calculus to at-risk students from low-income families. Enhanced my analytical skills and ability to solve problems by learning how to manage my time for each student who needed help.

Computer Skills

R, Github, Python, \LaTeX , MATLAB

Academic Achievements

Dean's Honors List every semester. Awarded for students who completed 12 or more units during the quarter and semester with a 3.5 or better GPA.

President's List every year. Awarded for students who have a grade point average of 3.5 or better for the whole academic year.

Awarded the Mr. and Mrs. Keith Soon Kim Mathematics and Science Scholarship in 2020 - 2021 academic year

Awarded the Samuel Gendelman Memorial Scholarship in 2018 academic year.

Won the Outstanding Poster Presentation Award in the MAA undergraduate student poster session at the Joint Mathematics Meeting 2019 conference, Baltimore, MD

Won the Outstanding Poster Presentation Award at the Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS) conference in San Antonio Texas 2018.

Professional Affiliations

Society for Industrial and Applied (SIAM)

Kappa Mu Epsilon (KME)

Mathematical Association of America (MAA)

American Statistical Association (ASA)

Society for the Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS)

Kellogg Honors College

McNair Scholar