

# Catalina Medina

Statistics PhD Student  
University of California, Irvine  
email: catalmm1@uci.edu

---

## Education

<b>PhD Statistics</b> (third year) University of California, Irvine (UCI) Advisor: Vladimir N. Minin	September 2019 - June 2024 [Projected]
<b>MS in Statistics</b> University of California, Irvine	September 2019 - June 2021
<b>B.S. Mathematics (specialization in Statistics)</b> <b>Minor in Biology</b> University of Nevada, Reno (UNR)	August 2015 - May 2019

---

## Research Interests and Current Projects

My interests include epidemiological applications of statistics to better understand disease and infection. Current methodological work involves understanding and accounting for the impact of reporting delay of genetic sequences in phylodynamic analyses. My recent application related projects range from identifying factors associated with SARS-CoV-2 positivity and mortality in Orange County, to a geostatistical exploration of factors related to Aedes mosquito exposure among Cambodian children.

---

## Publications

Parker DM, Bruckner T, Vieira VM, **Medina C**, Minin VN, Felgner PL, et al. Epidemiology of the early COVID-19 epidemic, Orange County, California, USA. *Emerging Infectious Diseases*. 2021 Oct. <https://doi.org/10.3201/eid2710.210103>.

---

## Awards

2020 Outstanding Graduate Teaching Assistant Award. UCI Donald Bren School of Information and Computer Sciences, Department of Statistics.

2019 UC Irvine Graduate Dean's Recruitment Fellowship.

2019 Nevada Undergraduate Research Award.

2018 Runner Up for the Prize for Undergraduate Research in Quantitative Biology. NSF-Simons Center for Quantitative Biology and Department of Molecular Biosciences, Northwestern University.

2018 SACNAS Conference Travel Award.

2018 Mathematical Biosciences Institute Capstone Conference Travel Award. Ohio State University.

---

## Certifications

2021 Certification in Stochastic Epidemic Models with Inference. University of Washington, Seattle, WA Summer Institute in Statistics and Modeling in Infectious Diseases (SISMID).

2021 Certification in MCMC II for Infectious Diseases. (SISMID).

2021 Certification in Evolutionary Dynamics and Molecular Epidemiology of Viruses. (SISMID).

---

## Programs and Professional Membership

2018-2019 McNair Scholar. University of Nevada, Reno

American Statistical Association Member

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

## Teaching and Tutoring Experience

### UCI Teaching Assistant

Statistical Methods for Data Analysis I (Stats 110) Summer 2021

Introduction to Probability and Statistics (Stats 120A) Summer 2020

Introduction to Probability and Statistics for Computer Science (Stats 67) Spring 2020

Statistical Methods for Data Analysis II (Stats 111) Winter 2020

Introduction to Biological Statistics (Stats 8) Fall 2019

### Tutoring

UNR Math Center Tutor October 2015 - May 2019

Private Mathematics and Statistics Tutor 2014 - Current

## Conference Presentations and Posters

**UNR College of Science Poster Competition** (Poster)\* November 2018  
UNR Reno, NV.

**Conference on Quantitative Approaches in Biology** (Poster)\* Novemeber 2018  
Northwestern University, Evanston, IL.

**SACNAS** The National Diversity in STEM Conference (Poster)\* October 2018  
San Antonio, TX.

**MBI Capstone Conference** (Poster)\* August 2018  
Mathematical Biosciences Institute, Columbus, OH.

**UNR McNair Symposium** (Oral presentation)\* August 2018  
University of Nevada, Reno, Reno, NV.

**UCLA National McNair Conference** (Oral Presentation)\* July 2018  
University of California Los Angeles, Los Angeles, CA.

\*Host-pathogen dynamics: Quantifying process-level variation using a system-specific dynamical model in a non-linear mixed effects modeling framework. (under: Dr. Paul Hurtado and Dr. Deena Schmidt)

## Professional Service and Outreach

Created and maintain animated maps for COVID-19 Trends by UC Irvine website to visualize Orange County COVID-19 cases, tests, and percent positivity by zip code for the public.  
(<https://www.stat.uci.edu/covid19/index.html>) 2021

Panelist for college career discussion for 1st year class of Mathematics, Physics, and Atmospheric Science majors at UNR. Nov 2020

Panelist for graduate school panel for UNR students hosted by Association for Women in Mathematics (AWM). Nov 2020

Presented on my early graduate school experience and life at UCI for the UNR 2020 cohort of McNair Scholars. Dec 2020.

---