

CINDY J. PANG

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EDUCATION

University of California, Los Angeles <i>Los Angeles, CA</i> Ph.D. Biostatistics	2023-2028
University of North Carolina at Chapel Hill <i>Chapel Hill, NC</i> B.S.P.H Biostatistics; B.A. Mathematics; Minor: English	2019-2023

EXPERIENCE

Carolina Population Center <i>Undergraduate Research Assistant</i>	09/2021 - 05/2023 <i>Chapel Hill, NC</i>
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Advisor: Dr. Paul Delamater, Department of Geography

- Conducted data analysis and data visualization on COVID-19 immunity in North Carolina using R
- Reviewed scientific literature and authored manuscript summarizing results
- Published as lead author in *Space and Spatiotemporal Epidemiology* for an article summarizing findings on spatial relationships and immunity on the COVID-19 Delta Wave in North Carolina counties

Carolina Population Center Internship Program	05/2021 - 07/2021
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- Led the process of cleaning and consolidating a large spatiotemporal database of COVID-19 cases and vaccination in R
- Create high (geographic) resolution estimates of vaccination coverage over time and assisted in scientific literature searches, created maps and graphics, and produced narrative text describing data and methods for a report
- Presented research findings to Program Director, Executing, other interns, and at the Summer Undergraduate Research Pipeline Symposium for a general audience

William W. and Ida W. Taylor Summer Undergraduate Research Fellowship (SURF) 05/2022-08/2022	
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Fellowship Recipient	Chapel Hill, NC
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- Awarded \$4000 to study causal mechanisms between population characteristics and localized disease outbreak severity for North Carolina Counties during the Delta Wave of the COVID-19 pandemic
- Will be presenting poster at upcoming Undergraduate Symposium to faculty and students

Directed Reading Program in Mathematics Participant	08/2021 - 12/2021 Chapel Hill, NC
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- Paired with a graduate student in mathematics to work on a semester-long independent study project in Nonlinear Dynamics
- Completed 4 hours of reading a week on *Nonlinear Dynamics and Chaos* by Steven Strogatz
- Delivered an informal 15-minute oral presentation with a 5-minute Q&A to an audience

Pizzagalli Lab, Laboratory for Affective and Translational Neuroscience - McLean Hospital (Harvard Medical School) Summer Intern Student	06/2019 - 07/2019 Belmont, MA
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Advisors: Dr. Yuen Siang-Ang, Dr. Diego Pizzagalli

- Programmed an experiment in MATLAB and pilot tested it in healthy community subjects

- Developed hypothesis that implicit and explicit reinforcement learning are distinct transdiagnostic constructs across psychiatric diagnoses

PROJECTS

Estimating COVID-19 Incidence in NC Before Vaccination 09/2022-04/2023

- Developed a method to estimate COVID-19 Incidence during the pre-vaccination era in NC by leveraging spatial characteristics with Monte-Carlo Simulation and hierarchical modeling using **R** and **high-performance computing** (UNC Longleaf)

Monkeypox Mapping 06/2022 - 09/2022

URL: cindypan.shinyapps.io/mpx_mapping/

- Created data visualizations via mapping and trendlines for global incidence and cumulative case and suspected counts for monkeypox pandemic
- Launched website with user-friendly interface using RShiny and RMarkdown

HONORS & AWARDS

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| 2023 | Three Year Service Award, <i>Carolina Housing</i> |
| 2022 | William W. and Ida W. Taylor Summer Undergraduate Research Fellowship (SURF) Award, <i>University of North Carolina</i> |
| 2022 | Summer Institute for Statistics and Modeling in Infectious Diseases (SISMID) Scholarship, <i>University of Washington Department of Biostatistics</i> |
| 2022 | Phi Beta Kappa, <i>University of North Carolina</i> |
| 2021 | Honors Carolina, <i>University of North Carolina</i> |

PUBLICATIONS

1. **Cindy Pang**, Paul L. Delamater, Spatiotemporal Characteristics of the SARS-CoV-2 Delta Wave in North Carolina, *Spatial and Spatio-temporal Epidemiology* (2023), doi: <https://doi.org/10.1016/j.sste.2023.100566>

POSTERS

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| 04/2023 | Pang C.J. Estimating COVID-19 Incidence During the Pre-Vaccination Era in North Carolina Counties by Leveraging Spatial Characteristics. <i>UNC Celebration of Undergraduate Research, Chapel Hill, NC</i> |
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PRESENTATIONS

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| 12/2021 | The Nonlinear Dynamics of Infectious Disease Models (SIR). <i>Directed Reading Program (DRP), UNC Department of Mathematics.</i> |
| 07/2021 | Estimating Localized COVID-19 Immunity Levels for North Carolina Counties. <i>Summer Undergraduate Pipeline (SUP) Research Symposium (virtual), UNC-Chapel Hill</i> |

TECHNICAL SKILLS

Programming Languages	R, Python, SAS, MATLAB, Java, STATA
Online data platforms	Qualtrics
Software	Github, L ^A T _E X

CAMPUS INVOLVEMENT

Carolina Housing**07/2020 - 05/2023*****Residential Advisor******Chapel Hill, NC***

- Oversee up to 30 student residents per semester; provide mentoring and serve as a mandated reporter
- Plan and organize 8 community programs per semester to create an inclusive housing environment

Residential Hall Association (RHA) Craige Community Government 11/2021 - 05/2023***Residential Advisor Liason******Chapel Hill, NC***

- Connected Community Government members with on-campus resources to plan programs for residential engagement
- Facilitated communication between Housing Leadership, Residential Staff, and Community Government
- Participated in residential engagement program planning and execution

UNC Department of Biostatistics, Inclusive Excellence Committee 10/2022 - 05/2023***Undergraduate Representative******Chapel Hill, NC***

- Support department initiatives for diversity and inclusion