

# Cyric K. Ng

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## EDUCATION

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| 2027 | Ph.D. Geography, University of California, Los Angeles<br>Dissertation: <i>TBD</i><br>Advisor: Marilyn N. Raphael  |
| 2024 | M.A. Geography, University of California, Los Angeles<br>Thesis: <i>Comparison of Antarctic Sea Ice Reconstruction from 1905 - 1979</i><br>Advisor: Marilyn N. Raphael |
| 2022 | B.S Earth Science & Physical Geography, University of California, Santa Barbara  |
| 2020 | Exchange Program, National University of Singapore, Singapore  |

## RESEARCH INTERESTS

I am interested in Antarctic sea ice variability, climate change impacts on global & local scales, synoptic & mesoscale meteorology, GIS, and remote sensing.

## RESEARCH EXPERIENCE

### The Changing Boundaries of Antarctic Sea Ice Sectors

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| 2025 - Present | <ul style="list-style-type: none"><li>● Investigating the changing regional variability and boundaries of Antarctic sea ice sectors since Raphael and Hobbs (2014)</li><li>● Extending the analysis to 2024 using consistent methodologies to assess evolving spatial patterns and recent circum-Antarctic behavior</li><li>● Preliminary findings show potential shifts in the Amundsen-Bellingshausen Sea and Weddell Sea sectors</li><li>● Further research is in progress to link this change with oceanic and atmospheric processes.</li></ul> |
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### **Comparison of Antarctic Sea Ice Reconstruction from 1905-1979**

- 2024 - 2025
  - Performed a rigorous statistical comparison of two recently completed twentieth-century Antarctic sea ice extent reconstructions (Fogt et al., 2022) and (Maierhofer et al., 2023)
  - Results indicated that the 2014/15 record high and the 2016/17 record low SIE are unlikely to occur even with the longer timescale
  - Highlighted the temporal and spatial differences between the two datasets due to the nature of the different methods employed in the reconstructions.

### **Prioritizing Neighborhood Cooling Interventions in Los Angeles, CA**

- 2024
  - Conducted a spatial policy assessment for the City of Los Angeles to identify priority areas for new cooling centers
  - Integrated seven indicators of heat vulnerability (population density, age, income, temperature, unhoused population, and proximity to cooling centers) from ACS, LAHSA, USGS, and LA Open Data Portal.
  - Developed a suitability map in ArcGIS Pro using rescaling and equal-weight overlay techniques to identify underserved, high-risk census tracts.

### **The Effects of Sea Level Rise in San Mateo County**

- 2022
  - Developed a flood risk vulnerability map using the ArcGIS Pro suitability modeler based on SMC land use and USGS geology data
  - Modeled the effects of sea level rise scenarios on critical facilities and vulnerable groups
  - Created an average flood risk score map of each census tract in SMC using zonal statistics

### **Understanding Sundowner Winds in Santa Barbara and Fire Weather Risk**

- 2021 - 2022
  - Conducted time series analysis using 40 years of weather data on Santa Rosa Island using Excel
  - Examined the patterns of meteorological variables associated with Sundowner Winds
  - Investigated frequent, extreme Sundowner Winds in relation to major wildfires in Santa Barbara

## SKILLS

Geospatial Analysis	ArcGIS Pro, ArcGIS Online, QGIS, Adobe Illustrator
Programming Languages	Python
Climate Modeling	CESM, CMIP 5/6 Datasets
Languages	English (Native), Cantonese (Native), Mandarin (Fluent)

## AWARDS

2022-2027	Eugene V. Cota-Robles Fellowship
2026	CliC OSC Conference Travel Grant

## TEACHING EXPERIENCE

UCLA Teaching Assistant	
2025 Winter, 2024 Fall, 2024 Spring	Introduction to Geographic Information Systems
2025 Spring, 2024 Winter	People and Earth's Ecosystem
2023 Fall	Earth's Physical Environment

## PROFESSIONAL PRESENTATIONS

2026	Climate and Cryosphere Open Science Conference (Poster)	Wellington, New Zealand
2024	American Geophysical Union Annual Meeting (Poster)	Washington D.C
2024	American Association of Geographers Annual Meeting (Poster)	Honolulu, Hawaii

## SERVICE

2023 - 2024	Geography Graduate Student Association - Treasurer
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## PROFESSIONAL TRAVEL

2024	Community Earth System Model (CESM) Tutorial	Boulder, Colorado
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## REFERENCES

Available upon request.