

Rosanna Neuhausler

Working at the nexus of art, science, humanities, and tech.
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New York, NY

CURRENT POSITION

Environmental Systems Dynamics Lab, Berkeley, CA 2016 - 2023

Ph.D. Candidate

Quantifying coastal land use change across Oceania and SE Asia and its impact on coral reefs using remote sensing and in-situ spatiotemporal data.

Investigating high-order, nonlinear interactions using machine learning.

Processing terabytes of satellite data using Google Earth Engine and Apache NiFi.

As project manager, developed collaboration with NOAA and received funding from NASA for myself and undergraduate research assistant.

SELECT PROJECTS

Art Residency with L'AIR Art at Atelier 11, Paris, France Summer 2022

Explored science communication through art. [Residency Bio](#)

Face Recognition on the Edge, Berkeley, CA Fall 2018

Used edge AI to create a cloud-independent intruder detection system. [Paper](#)

Social Vulnerabilities, Superfund Sites, and Flooding Berkeley, CA Spring 2017

Compared discrepancies in social vulnerability indices associated with Superfund Sites and FEMA flood maps processed using R, GDAL library, and QGIS. [RShiny App](#)

PREVIOUS RESEARCH

Oxford University, Oxford, United Kingdom 2017- 2022

Visiting Researcher (Summer 2017)

Explored phase shifts in reef-based interspecies competition and emergent patterning by developing a stochastic spatiotemporal model in python. [Paper](#)

Center for Catastrophic Risk Management, Berkeley, CA 2014 - 2015

Research Assistant

Managed and processed spatial data in multi-server network using ArcGIS for study on the impact of sea level rise on the California's coastal infrastructure. [Paper](#)

Chinese University of Hong Kong, Hong Kong Summer 2015

Cal Energy Corps Intern

Developed MATLAB functions to semi-automate process of segmenting fisheye images for calculating the thermal effect of various building materials in urban heat island effect study. [Poster](#), [Blog](#)

RESEARCH FUNDING

NASA FINESST 2019 - 2022

ISEECI Summer Research Grant 2018

NSF Research Traineeship Fellowship 2017 - 2018

EWJ Gateway Fellowship 2016 - 2017

TEACHING AND LEADERSHIP

Quantitative Environmental Problem Solving, Berkeley, CA

Spring 2022

Graduate Student Instructor

Introduction to Earth System Science, Berkeley, CA

Spring 2020, Fall 2018

Graduate Student Instructor

Data Science Boot Camp, Tokyo, Japan

Summer 2018

Assistant Data Science Instructor

Sagehen Natural Reserve Station Data Camp, Sierra Nevada

Summer 2018

Data Camp Organizer/Leader

EDUCATION

University of California, Berkeley

Ph.D. Geography, Earth System Science

Ph.D. minor Computational and Data Science and Engineering

2016 - Aug 2023

B.A. Urban Studies

B.S. Conservation & Resources Studies

2012 - 2016

SKILLS

Methodologies Data Science/Statistics, Remote Sensing, GIS, data pipelines

Technical Python, R, Git, JavaScript, MATLAB, ArcGIS, Google Earth Engine, Adobe Photoshop, Illustrator, QGIS

Language English, German, and Swiss-German.