

# ALICE LIN

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## EDUCATION

**University of British Columbia, Vancouver, Canada** | GRADUATED MAY 2020

Masters in Geomatics for Environmental Management

**PROJECT:** *Evaluating the influence of mangrove forest fragmentation and adjacent coastal water quality in Southwest Cambodia between 2014-2019*

**University of California, Los Angeles, USA** | GRADUATED SPRING 2018

B.S. Ecology, Behavior and Evolution (*major, departmental honors*),

Geographic Information Systems & Technologies (*minor*)

Cumulative GPA: 3.87 | *Magna cum laude*

## RESEARCH EXPERIENCE

### Research Intern

**NASA DEVELOP National Program** | Jet Propulsion Lab, Pasadena, CA, United States

BELIZE WATER RESOURCES (Project Co-Lead)

SUMMER 2019

Lead team to produce and validate a Google Earth Engine tool to derive turbidity and chlorophyll-a metrics and time series analyses from Landsat 8, Sentinel-2, and MODIS optical imagery. Worked with end users at the Wildlife Conservation Society and Coastal Zone Management Authority & Institute in Belize.

GREAT LAKES WATER RESOURCES (Team member)

SPRING 2019

Worked with a team to produce a Google Earth Engine tool to generate on-demand statewide wetland maps for Minnesota. Developed methodology to pre-process optical and SAR datasets, segment image stacks, and classify objects by wetland types. Worked with end users at US Fish and Wildlife Service, NOAA, University of Minnesota, and Minnesota Dept. of Natural Resources.

ALASKA ECOLOGICAL FORECASTING (Team member)

FALL 2018

Collaborated in a four member team to develop an algorithm to delineate inundation extent from Sentinel-1 C-band SAR data. Calibrated and validated products with high resolution optical imagery. Created Google Earth Engine tool to extract surface water classes from Landsat 8 imagery. Worked in conjunction with end users at the US Fish and Wildlife Service and Alaska Satellite Facility.

### Field Research Intern

**Cusack Lab, UCLA Dept. of Geography** |

JANUARY 2018 – MARCH 2018

Smithsonian Tropical Research Institute, Panama

Assisted in the construction of a new longterm drying experiment in sites across the Panama Canal Region. Processed soil samples to obtain baseline belowground biomass at study sites.

**Marine Biology Quarter** | Mo'orea, French Polynesia

SPRING 2017

IMPACT OF BOAT CHANNELS ON BENTHIC COVER AND REEF COMMUNITY

Investigated the effect of small scale boat channels (1-2m wide) on the benthic composition and reef fish assemblage of an impacted fringing coral reef. Collected data on physical structure, temperature variations, benthic cover through quadrat sampling, and fish diversity through visual counts. Processed, analyzed, and visualized data for over 2,000 quadrat samples and 18,000 fish sightings in JMP and Excel.

SPATIAL VARIATIONS IN NUTRIENT LIMITATION ON MACROALGAE

Conducted nutrient limitation bioassays and collected data on benthic cover and water quality across multiple fringing reef sites. Deployed, collected, and processed bioassays to determine

## PORTFOLIO

[alin7138.github.io](https://alin7138.github.io)

## SKILLS

### GIS and Remote Sensing |

QGIS, Esri ArcGIS (ArcMap and ArcGIS Pro), ENVI, Fusion, Fragstats, FME, Google Earth Engine

### Computing | R, Python

### Adobe Creative Suite |

Photoshop, Illustrator, After Effects, InDesign

**Fieldwork** | GPS surveying, fish and bird species identification, mist netting

## RELEVANT COURSEWORK

### GEOSPATIAL |

Linear Regression Models and Spatial Statistics, Environmental Modeling, Remote Sensing, Advanced GIS, Cartography

### BIOLOGY |

Landscape Ecology and Management, Ecosystem Ecology, Plant Physiology, Conservation Biology, Marine Science, Genetics

changes in biomass of algal samples. Analyzed data in JMP.

#### **Undergraduate Research Assistant**

**Undergraduate Research Program, UCLA** | Los Angeles, CA, United States

FALL 2015 – SUMMER 2016

Assisted in the set up of data collection plots at the Seal Beach Wildlife refuge for wetland soil augmentation project. Performed lab work consisting of above-ground and below-ground separation of biomass samples. Trained and coordinated team of undergraduates engaging in research.

## PROFESSIONAL EXPERIENCE

#### **Freelance Cartographer and Graphic Designer**

**Easter Island Statue Project** | Santa Monica, CA, United States

JUNE - AUGUST 2018

Conducted research on marine resources and related rock art on Easter Island. Conceptualized and created maps and graphics to be used in atlas.

#### **Social Media Content Assistant**

**UCLA Grand Challenges - Sustainable LA** | Los Angeles, CA, United States

SEPTEMBER - DECEMBER 2017

Curated daily social media content and campaigns. Created informational graphics and wrote copy for social media posts across multiple platforms.

**UCLA Daily Bruin** | Los Angeles, CA, United States

#### **Graphics Editor**

SUMMER 2015 – SPRING 2016

Oversaw graphics staff (10+ members) during daily production of a national award winning publication. Edited graphics to ensure accuracy, effective and creative communication, and compliance with Daily Bruin style conventions. Train new interns and staff from various departments.

#### **Senior Staff**

SPRING 2016 – SPRING 2018

Produced graphics for daily production and newsmagazines.

## VOLUNTEER EXPERIENCE

#### **Graduate Student Volunteer**

**UBC Botanical Garden** | Vancouver, BC, Canada

FALL 2019

Collected GPS points with Ashtech FAST Survey GPS Receiver unit and rangefinder. Generated point data for garden path digitization in the BC Rainforest section.

#### **Aquarist Intern**

**Santa Monica Pier Aquarium** | Santa Monica, CA, United States

SPRING 2016 - SPRING 2017

Maintained exhibits, involving cleaning, feeding, and monitoring of animals. Presented information on aquatic species to visitors. Trained new aquarist interns in daily duties.

## AWARDS & HONORS

#### **Binkley Family Graduate Scholarship 2020**

Nominated and awarded by instructors, teaching assistants, and program coordinator in recognition of academic performance and engagement within MGEM cohort

#### **DEVELOP Virtual Poster Session Fall 2018** | *Best video (winner)*

Conceptualized and animated video showcasing applied remote sensing research on wetland mapping

#### **Pacemaker Award 2016** | *Best informational graphic (winner)*

National Award for College Media

#### **UCLA Dean's Honors List**

Fall 2014 – Spring 2015, Winter 2016 – Spring 2018