

# KORT ALEXANDER

[kort.alexander1@gmail.com](mailto:kort.alexander1@gmail.com) | (325) 450-2079 | [LinkedIn](#) | [Website](#)

## SUMMARY OF QUALIFICATIONS

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- Extensive research background, implementing 10+ research projects from study design to manuscript preparation
- Certified PADI Divemaster with experience leading scientific scuba dives and knowledge of marine field techniques
- Advanced scientific programming and GIS skills, including 6 years of experience in R, with special expertise in data visualization, geospatial data analysis, statistical analysis, machine learning, and model building
- Science communications skills across diverse media, including technical writing, oral presentations, and filmmaking
- Passion for science-based ocean health solutions stemming from years of working with conservation nonprofits

## MARINE CONSERVATION SPECIAL PROJECTS

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### **South Caicos Coral Reef Restoration** – The School for Field Studies, Turks and Caicos Islands (8/23–8/24)

- Led groups of 4-6 undergraduate students on coral in-situ nursery dives to monitor health and growth of 300+ fragments of critically endangered staghorn and elkhorn coral following 2023 bleaching event
- Spearheaded data analysis and coauthored [scientific paper](#) on coral bleaching resilience to inform restoration efforts
- Secured £50,000 in grant funding from UK government for construction of coral restoration laboratory
- Coauthored [magazine article](#) communicating research findings for TCI tourism magazine

### **Integrating Ecosystem Services into a Prioritization Model for Surf Protected Areas** (3/22–6/23)

#### **Role:** Data Manager | **Client:** Conservation International

- Worked with global conservation NGO on [master's group project](#) to incorporate blue carbon storage and coastal protection into prioritization framework for surf ecosystem protection in Brazil
- Created novel mangrove carbon map for Brazil by combining published spatial datasets using ArcGIS Pro
- Completed 80+ page technical report detailing project objectives, methodology, key findings, and implications
- Designed and delivered both technical and non-technical presentations for faculty panel and general public

## MARINE SCIENCE & CONSERVATION EXPERIENCE

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### **Coral Data Manager** – The Reef Institute, West Palm Beach, FL (9/24–6/25)

- Managed data systems for coral restoration lab maintaining 1,000+ coral fragments across 20+ species, including federally endangered corals; tracked holdings, water quality logs, and growth metrics
- Oversaw \$2M grant management including budget tracking and submission of quarterly deliverables and reports
- Directed part-time staff and led undergraduate interns in implementation of coral husbandry research projects
- Assisted with coral breeding and propagation activities like feeding, health assessments, and aquarium upkeep

### **Waterfront Assistant** – The School for Field Studies, South Caicos, Turks and Caicos Islands (8/23–8/24)

- Led undergraduate study abroad students on marine science field experiences, including surveys of fishery target species, ecosystem evaluations, and Caribbean fish and coral ID
- Executed applied marine research projects on invasive lionfish removal (via roving diver surveys), marine debris, habitat surveying, and nocturnal octopus monitoring, totaling 25 field data collection days
- Directed and advised students on data management, statistical analysis, scientific writing, and presentation skills
- Led or served as safety diver for over 60 educational, scientific, and recreational scuba dives

### **Surf Conservation Partnership Intern** – Conservation International, remote (6/22–8/22)

- Created comprehensive dataset of over 500 surf spots in Brazil by web scraping and combining existing datasets
- Built models in ArcGIS Pro to reproducibly analyze 20 spatial datasets using pressure-state-response framework, including development, biodiversity, habitat coverage, infrastructure, and protected area data
- Collaborated with local conservation groups to refine prioritization to reflect local concerns

## EDUCATION

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**Master of Environmental Science and Management**, 3.97 GPA (June 2023)

**Coastal Marine Resources Management Specialization**

**Bren School of Environmental Science & Management – University of California, Santa Barbara (UCSB)**

Highlighted Coursework: Applied Marine Ecology, Coastal Marine Ecosystem Processes, Conservation Planning & Priority Setting (including practicum), Advanced Data Analysis, Environmental Media Production

**Bachelor of Science in Biology**, 4.0 GPA (May 2021)

**Ecology and Environmental Biology Concentration | Chemistry Minor**

**Texas Tech University (TTU)**, Lubbock, TX

Honors/Awards: Highest-ranking graduate, Summa cum laude, Buena Vista Endowed Scholarship recipient

Study Abroad: TTU Center in Sevilla (Spain, 7/19), School for Field Studies (Turks and Caicos, 1/20–5/20)

## ADDITIONAL EXPERIENCE

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**Teaching Assistant – UCSB**, Santa Barbara, CA (9/21–12/21, 9/22–6/23)

- Prepared material for and led sections of ecology and evolution, genetics, and earth science
- Created and delivered guest lecture on ocean health challenges and solutions
- Guided undergraduate students through scientific research process, including technical writing skills

**Research Assistant – Texas Tech University**, Lubbock, TX (8/18–5/19, 8/19–12/19, and 8/20–5/21)

- Analyzed acoustic data from rainforest bats threatened by deforestation in Southeast Asia using BatSound and delivered poster presentation at undergraduate research conference
- Collected and identified 300+ leafhoppers from Lubbock County, TX to build database for genetic study
- Extracted and analyzed plant DNA as part of pilot study on environmental DNA techniques and delivered oral presentation at undergraduate research conference

## PRESENTATIONS

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**Master's Group Project Public Presentation – UCSB**, Santa Barbara, CA (4/23)

Title: Integrating ecosystem services into a prioritization model for surf protected areas

**Oral Presentation – Texas Tech University Undergraduate Research Conference**, Lubbock, TX (3/21)

Title: Airborne environmental DNA particle size varies in the environment

**Poster Presentation – Texas Tech University Undergraduate Research Conference**, Lubbock, TX (4/19)

Title: The effects of environmental variables on bat activity: implications for the design of acoustic surveys

## SKILLS, CERTIFICATIONS, & VOLUNTEER EXPERIENCE

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**Programming and GIS**: R (advanced, 6 years experience), ArcGIS, QGIS, GitHub, Python, SQL, Bash

**Additional Software**: Microsoft Office, Trello, Zoom, Slack

**Certifications**: PADI Divemaster (140+ dives), EFR/CPR

**Volunteer**: Adult Swim Lesson Instructor (4/24–8/24), Environmental Topics Course Co-mentor (1/21–5/21), Animal Husbandry Intern (6/19–8/19, 6/20–8/20)