

# Daniel Willett

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Github: <https://github.com/danwillett>

Portfolio: <https://danwillett.github.io/react-portfolio/>

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## Summary Statement

I am a recent graduate of UC Berkeley with over three years of research experience applying data acquisition, analytics, and visualization in MATLAB, Python, and JavaScript programming languages to a wide array of Earth System Science fields. I completed four research projects including a capstone honors thesis during my senior year, all involving carbon storage quantification using GIS and remote sensing technologies. Following graduation, I developed software engineering skills through a Full Stack Web Development Program including database management and curation.

## Education

*University of California, Berkeley*

Molecular Environmental Biology, BS

*Berkeley Extension Coding Bootcamp*

Full Stack Web Development, Certificate

## Technical Skills

Frontend: HTML5, CSS, React, JQuery, Javascript, Bootstrap

Backend: MySQL, MongoDB, Express, ReactJS, Node, Python, Flask, Heroku, Webpack

Analytical: MATLAB, QGIS, ArcGIS, & Google Earth Engine

## Bootcamp Coding Projects

**Restaurant Roulette** | [Repo](#) | [Deployed](#)

Frontend & Backend Development

- Randomly selects a restaurant to dine at for users based on user-preferences
- Utilizes relational MySQL database to hold user data
- Tools/Languages: Node, Express, MySQL, Sequelize, Javascript, HTML, CSS, Bootstrap, Yelp Fusion API

**OutdoorsyISH** | [Repo](#) | [Deployed](#)

Generated Map & Fetched Park Data

- Enables users to search for their next National Park Service adventure

- This project allows users to search for national parks by state and possible park activities. Users view parks on a map and save favorites to local storage.
- Tools/Languages: Javascript, HTML, CSS, Foundation, NPS API, & Open Layers API

## Data Analytics & Research

### Silver Lab, UC Berkeley – Soil Scientist

June 2020 – October 2022

- Proposed and received grant funding through UC Berkeley's College of Natural Resources in 2020 to assess the effects of soil amendments on carbon and nitrogen content in grassland soils.
- Was awarded fellowship funding through UC Berkeley's SURF program the summer of 2021 to complete an honors thesis modeling changes in spectral properties of amended grasslands using GIS and remote sensing methods. Completed the thesis in May 2022 and presented in the Honors Symposium.
- Operated gas chromatography and spectrometry instruments as a lab technician

### COAST Lab, UC Santa Barbara – Oceanographic Data Analyst

May 2019 – August 2019

- Visualized historical data from buoys in the Santa Barbara Channel using MATLAB
- Modeled relationships between wind and wave generation in the channel and traced wave motion towards the coastline

## Awards

UC Berkeley College of Natural Resources

- **Kenneth L. Babcock Prize** (May 2022) "Excellence in the Field of Environmental Science"

## References

Dr. Whendee Silver | Principal Investigator of the Silver Lab | [wsilver@berkeley.edu](mailto:wsilver@berkeley.edu)

Dr. Andrew Jones | Post-Doc in the Silver Lab | [andrew.jones2@uqconnect.edu.au](mailto:andrew.jones2@uqconnect.edu.au)

Dr. Nick Nidzieko | Principal Investigator of the COAST Lab | [nidzieko@ucsb.edu](mailto:nidzieko@ucsb.edu)