

# Michelle Lam

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## EDUCATION

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**Master of Environmental Data Science** (Expected June 2023)

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

Highlighted Coursework: Modeling Environmental Systems, Databases and Data Management, Analytical Workflows and Scientific Reproducibility, Machine Learning in Environmental Science (all complete by 6/23)

Leadership/Involvement: Capstone Project Committee

**Bachelor of Science in Environmental Science** (June 2017)

**Santa Clara University (SCU)**, Santa Clara, CA

## SKILLS

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**Languages:** R (tidyr, dplyr, ggplot2), Python (NumPy, Matplotlib, Pandas, Xarray, Dask)

**Environments:** RStudio, JupyterLab, VS Code

**Technical:** Data Retrieval Through APIs, Data Cleaning and Preprocessing, Data Visualization, Geospatial Analysis

## MASTER'S CAPSTONE DATA SCIENCE PROJECT

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**Identifying Optimal Solar and Wind Co-Location Sites in the United States (1/23–Present)**

**Role:** Data Manager | **Client:** Dr. Grace Wu, UCSB Environmental Studies Department

- Calculate the optimal ratio of solar to wind at over 3,000 potential co-location sites in Texas to spark interest in co-location as an efficient solution to help meet the demand for carbon-free electricity
- Obtain meteorological time-series data through National Renewable Energy Lab (NREL) APIs, model hourly energy output through NREL System Advisor Model (SAM), and run a linear optimization through the Pyomo package in Python
- Manage project priorities, tasks, and code with clear communication through GitHub Projects
- Create a methods section, policy brief, and interactive web application to communicate results

## PROFESSIONAL EXPERIENCE

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**Baker Electric Home Energy**, Escondido, CA

**Business Systems Analyst I** (8/19-7/22)

- Maintained accurate data and resolved systems issues within 6 different business applications
- Facilitated meetings with 50+ employees to define business, financial, and operational requirements
- Collaborated in the design, deployment, and user training of 3 new and 4 updated applications
- Advanced the development of an in-house app through user acceptance testing and user stories
- Reduced time from lead to proposal by 60% by adding new integrations to the sales proposal process

**Sales Administrator** (2/18-8/19)

- Generated key metric reports within Salesforce to provide insight into sales and product performance
- Supported a growing team of 15 sales consultants by ensuring accuracy of contracts and CRM platform, consolidating sales presentation materials within a repository, and coordinating promotions
- Initiated opportunities to learn additional roles and areas of the business

**Associate Consultant – Silicon Valley Power**, Santa Clara, CA (7/16-6/17)

- Performed home energy audits to promote energy efficiency for residents of the municipal utility
- Represented Silicon Valley Power and engaged with hundreds of residents at 2 public events

## CERTIFICATIONS & ADDITIONAL TRAINING

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**Certifications:** Salesforce Administrator, LEED Green Associate

**Data Trainings/Workshops:** An iterative approach to streamlining your analytical workflows using functions and for loops, Teach Me How to Google, Debugging with RStudio, R Tips, Tricks & Keyboard Shortcuts, Intro to Shiny