

Michelle Lam

(510) 672-4767 | michellelam777@gmail.com | michellelam777.github.io | [GitHub](#) | [LinkedIn](#) | San Diego, CA

EDUCATION

Master of Environmental Data Science (June 2023)

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

Highlighted Coursework: Modeling Environmental Systems, Statistics for Environmental Data Science, Machine Learning in Environmental Science, Databases and Data Management

Leadership/Involvement: Capstone Project Committee

Bachelor of Science in Environmental Science (June 2017)

Santa Clara University (SCU), Santa Clara, CA

SKILLS

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

Environments: RStudio, JupyterLab, VS Code

Technical: Data Cleaning, Data Visualization, Microsoft Office (Excel, Word, PowerPoint), Aurora, ArcGIS, R Shiny

MASTER'S CAPSTONE DATA SCIENCE PROJECT

Co-Locating a Power Couple: Retrofitting Existing Wind Projects with Solar PV in the U.S. (1/23 – 6/23)

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

- Calculated the optimal ratio of solar to wind at over 1,300 existing wind project sites in the contiguous U.S. to spark interest in co-location as an efficient solution to help meet the demand for carbon-free electricity
- Obtained meteorological time-series data through National Renewable Energy Lab (NREL) APIs, modeled hourly energy output through NREL System Advisor Model (SAM), and solved a nonlinear abstract optimization with an objective to maximize profit through the Pyomo package and CPLEX in Python
- Conducted multi-criteria techno-economic analysis to rank existing wind projects on environmental sensitivity and estimated annual levelized-costs with co-location
- Created a methods section, technical documentation, and interactive web application to convey findings

ENERGY INDUSTRY EXPERIENCE

Baker Electric Home Energy, Escondido, CA

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

- Facilitated meetings with 50+ stakeholders to define business, financial, and operational requirements
- Maintained accurate pricing and technology inputs across financial and system modeling applications
- Collaborated in the design, deployment, and user training of 3 new and 4 updated applications
- 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, areas of the business, and multiple software tools

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

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

CERTIFICATIONS & ADDITIONAL TRAINING

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