

# JOE DECESARO

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## EDUCATION

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**Master of Environmental Data Science**, 4.0 GPA (Expected June 2022)

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

Leadership: Class Co-Chair, Dean's Advisory Council Committee Student Representative

Highlighted Coursework: Statistics, Policy Evaluation, Remote Sensing, Machine Learning, Intro to Data Storage and Management, Spatial Analysis, Data Visualization, Scientific Reproducibility

Honors/Awards: Environmental Data Science Scholarship

**Bachelor of Science in Materials Engineering**, 3.42 GPA (June 2018)

**California Polytechnic State University, San Luis Obispo**

Leadership: Orientation Leader, Triathlon Team Head Bike Coach & MTS Race Sponsorship Lead

Capstone: Developed engineering methodology to encourage designer accountability for product lifecycle

Honors/Awards: Dean's List (5 quarters)

Study Abroad: Universidad de Navarra – Tecnun (7/16–8/16)

## MASTER'S CAPSTONE ENERGY DATA SCIENCE PROJECT

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**Renewable Energy Siting Predictors Observed from National Data for Wind and Solar** (9/21–6/22)

**Role**: Project Manager | **Client**: Grace Wu, UCSB Environmental Studies

- Consolidate multiple spatial large data sources into a raster stack with cohesive extent and coordinate reference system to determine greatest predictors of siting renewable energy utility scale projects.
- Generate prediction map in R of the most likely locations for renewable energy projects in the contiguous US using machine learning methods logistic regression, random forest, and Maxent methods.
- Manage a 4-person team using GitHub to maintain project schedule and ensure client goals are met.

## EXPERIENCE

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**Environmental Engineer Consultant II – Ashworth Leininger Group**, Camarillo, CA (1/19–5/21)

- Analyzed data in Excel to determine electrification feasibility, compared emission outputs with natural gas, and wrote a 15-page technical summary for a client to communicate to the California Air Resources Board.
- Managed onsite air, water, and hazardous waste environmental compliance for large glass manufacturing facility for a 6-month period and communicate requirements to operational staff and plant manager.
- Conducted environmental regulatory gap analysis for facilities and developed client specific improvements.
- Developed a Word template for Spill Prevention Countermeasure and Control Plans with senior leadership that meets all regulatory requirements and drives down the cost of generating each plan for clients.

**Production Engineer Intern – E&J Gallo Winery**, Modesto, CA (6/18–12/18)

- Implemented operation of new manufacturing line with bottling team leadership and operators through continuous improvement strategies like data collection and limiting operational variability.
- Facilitated communication between upper management, maintenance, and operators so that all stakeholders' needs were being communicated and met to ensure smoother production operations.

**Manufacturing and Warehouse Intern – PepsiCo**, Fresno, CA (6/17–8/17)

- Designed and executed manufacturing loss study by designing experiment and collecting data to present and suggest solutions that limited operator error to factory and regional leadership.
- Standardized procedures for startup and shutdown of the manufacturing facility for all production lines through documentation in a single binder.

## TECHNICAL SKILLS

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**Technical**: R (RStudio, Advanced), Python (Jupyter, Familiar), Command Line, SQL (SQLite, Basic), GitHub, Microsoft Office (Word, Excel, PowerPoint, Outlook), Slack, Google Workspace (Drive, Documents, etc.)