

DEXTER LUU

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WORK EXPERIENCE

UCSF, San Francisco, CA

Jan 2024 – Present

Data Scientist - Energy, Water, and Sustainability

- Implemented a data pipeline and workflow for scope 3 emissions reporting reducing work hours by 75%
- Created energy savings forecasting models with AMI data to influence project implementation strategy
- Collaborated with engineers to implement projects saving more than 500 MWh per year in energy
- Implemented leak detection checks for domestic and irrigation water use lowering response time by 40%
- Developed an energy ML web app to evangelize savings measurement and reduce verification times by 15%

kW Engineering, Oakland, CA

Jun 2022 – Dec 2023

Data Analyst II

- Led end-to-end data science projects with budgets up to \$2M, which involved gathering and cleaning data, creating machine learning models, predicting, and delivering analytics findings in reports and visualizations
- Guided strategic decisions for portfolio projects by screening out risky options based on modeling metrics
- Tested and implemented a new outlier detection algorithm resulting in an 18% improvement
- Maintained and further developed nmecr, an open source modeling tool in R used to model building energy use
- Developed nmecpy, an internal Python library used as the energy modeling tool in our SkySpark product

Applied Energy Group, Walnut Creek, CA

Jun 2020 – Jun 2022

Senior Data Analyst

- Evaluated customer performance for California statewide and PG&E specific demand response programs using econometric modeling in R resulting in technical industry publications
- Led Python script development for common data quality checks resulting in a 10% reduction in analysis time
- Implemented clustering methods to match similar customers for control group regression analysis
- Documented data sources, modeling methods, and evaluation metrics for various analyses
- Addressed concerns and comments in analyses from technical reviewers and stakeholders to ensure quality

ASML, San Diego, CA

Jun 2019 – Aug 2019

Manufacturing Data Analyst Intern

- Utilized statistical simulation methods in Python to reduce the cycle time of a manufacturing tool by 15%
- Optimized experimental design for various quality assurance tests resulting in a 20% reduction in material costs
- Implemented ETL processes using Python and SQL to automate weekly reporting saving 5% of work hours
- Presented results, key takeaways, and next steps for internship projects to management and stakeholders

EDUCATION

San Diego State University, San Diego, CA

May 2020

Master of Science in Statistics

University of California, Davis, Davis, CA

Jun 2017

Bachelor of Science in Chemical Engineering

SKILLS

Data Visualization: PowerBI, Tableau, ggplot, Matplotlib, Seaborn, Microsoft Excel, Google Sheets

Techniques: Regression, Decision Trees, Random Forest, Clustering, Neural Networks

Tools and Frameworks: Python (pandas, numpy, scipy, scikit-learn), R, MATLAB, Stata, SQL, Git