

Dawson Verley

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Summary

Extensive experience translating complex data into actionable insights. Background in energy systems, policy and data science. Passionate about decarbonization and data-driven decision-making.

Education

University of California, Berkeley

Berkeley, CA

M.S. in Energy and Resources

August 2024 — May 2026

- Emphasis: Machine Learning, Energy System Modeling, and Economics
- Relevant Coursework: Energy Data Science, Energy System Modeling, Statistical Learning Theory, Probability Theory, Model Evaluation, Mathematical Economics, Climate Change Economics, Quantitative Policy Analysis

Stanford University

Stanford, CA

B.A. in Political Science (Honors and Distinction, Phi Beta Kappa)

September 2018 — June 2022

- Emphasis: Data Science and Causal Inference
- Relevant Coursework: Deep Learning, Statistical Learning, ML for Social Scientists, Data Science, Scientific Python

Professional Experience

Visiting Researcher

June 2025 — August 2025

Division of Energy Systems, KTH Royal Institute of Technology

Stockholm, Sweden

- Designed ML models for household energy use to assist policymakers with infrastructure planning
- Built AI agents to automate research workflows, dramatically reducing turnaround time for systematic reviews

Research Data Analyst

September 2023 — September 2024

Department of Political Science, Stanford University

Stanford, CA

- Built ML tools to harmonize heterogeneous datasets, enabling large-scale survey data analysis
- Presented insights from messy data to senior leadership, iteratively shaping research strategies and priorities

Legislative Aide (Energy and Natural Resources)

January 2023 — January 2024

Alaska State House

Juneau, AK

- Briefed legislators and wrote memos on topics related to climate policy and energy technology
- Drafted legislation with stakeholders across government and industry; primary contributor to two bills passed into law

Selected Projects

Power Purchasing Agreement (PPA) Analytics Dashboard

2026

- Developed an end-to-end analytics dashboard using DuckDB and Streamlit – <https://ferc-dashboard.streamlit.app>
- Transformed raw FERC EQR data into interactive visualizations to track price trends and inform procurement strategies

Uncertainty Quantification for Energy Markets

2025

- Developed conformal prediction methods to quantify net load uncertainty in wholesale electricity markets
- Benchmarked my approach against standard engineering heuristics to improve forecast reliability and decision-making

Teaching

Graduate Student Instructor (Data Science and Machine Learning)

August 2024 — May 2026

University of California, Berkeley

Berkeley, CA

- Communicated complex data science and machine learning concepts to 500+ students
- Mentored students through end-to-end energy and environmental data science projects

Technical Skills and Proficiencies

- **Analytics & BI:** SQL (Advanced), DuckDB, Streamlit, Databricks, Tableau, Snowflake/BigQuery, Excel/GSheets
- **Languages & Tools:** Python (Pandas, Polars, NumPy, SciPy, PyTorch, Xarray, Dask), Airflow, Git, Docker, GCP, CI/CD
- **Operations & Strategy:** Executive Briefing, Stakeholder Engagement, Business Analytics, Energy Market Modeling