

Tobiah Steckel

CONTACT

1321 Locust Place
Davis, CA 95618

tsteckel@ucdavis.edu
2628257347

WORK EXPERIENCE

University of California, Davis: Energy and Efficiency Institute

Sep 2019

Graduate Student Researcher

- Capacity expansion optimization modeling (e.g., RESOLVE, ReEDS), techno-economic modeling (e.g., Levelized Cost of Storage, StorageVET), Monte Carlo simulation
- Research Publication (National Center for Sustainable Transportation grant)

California Independent Systems Operator (CAISO)

Jun 2020 — Sep 2020

Forecasting Intern (Market Quality and Renewable Integration)

- Accuracy validation of Load and VER forecasting model (R and Excel)
- Dashboard development for data visualization (R)
- Began development of in-house load forecasting model (R)

University of Wisconsin-Madison:
Atmospheric and Oceanic Sciences

Jan 2017 — Aug 2019

Research Intern (formerly student assistant)

- Large (~Tbs) data analysis (e.g., time series analysis) of satellite data products (Python)
- Algorithm creation w/ statistical learning techniques (Python)

QUALIFICATIONS

- Regular use of **R**. Relevant courses: *Spring '20, Fall '20, Fall '17*
- Regular use of **Python**. Relevant courses: *Spring '17*
- Deterministic and Stochastic Optimization (**Gurobi** w/ **R** and **pyomo**) Relevant courses: *Winter '21, Fall '19*
- Predictive Modeling in **R** and **Python**: *statistical and machine learning* Relevant courses: *Fall '20, Spring '20*
- Time Series Analysis in **R** and **Python**: Autoregression, Fourier Transform Relevant courses: *Fall '20*
- Life Cycle Assessment (LCA) in **GaBi**. Relevant courses: *Winter '21, Winter '20*
- Regular use of **Microsoft Suite** and **SQL**
- Worked in **Unix/Linux** OS, **Mac** OS, **Windows** OS
- Publication- "Applying Levelized Cost of Storage Methodology to Utility-Scale Second-Life Lithium-Ion Battery Energy Storage Systems". Steckel, Kendall, Ambrose. 2021. *Applied Energy*.
- Presentation - International Symposium for Sustainable Systems and Technology *Summer '21*
- Presentation - UW-Madison Undergraduate Symposium *Spring '18*
- Award - *ITS-Davis BMW Corporate Affiliate Fellowship '20*

EDUCATION

M.S. in Energy Systems (College of Engineering)

September 2019 — June 2021

University of California, Davis | Adviser: Dr. Alissa Kendall

REFERENCES

Amber Motley: Short Term Forecasting Manager (CAISO) amotley@caiso.com

Dr. Alissa Kendall: Graduate research adviser amkendall@ucdavis.edu

Dr. Hanjiro Ambrose: Graduate research adviser hambrose@ucdavis.edu

Dr. Tristan L'ecuyer: Undergraduate research adviser tlecuyer@wisc.edu