

Matt Motoki

Kaggle Grandmaster · Predictive Modeling & Forecasting

Remote | mattmotoki.github.io | [Kaggle](#) | [GitHub](#) | [Google Scholar](#)

Senior data scientist and machine-learning specialist with over a decade of experience solving difficult prediction problems and shipping production-quality solutions. Kaggle Competitions Grandmaster (peak global rank 18) with 13 national and international awards and **\$350,000+ in prize money**, including **top finishes in solar irradiance, net-load, solar-production, and building-energy forecasting**. Specializes in improving existing models and pipelines through rigorous validation, feature engineering, forecasting, ensembling, calibration, and error analysis.

ENERGY & FORECASTING — SELECTED COMPETITION RESULTS

- **MISO — Baseline DER Performance**, 2025 — **Top Prize · \$7,000** — counterfactual baselining & measurement for grid-connected DERs
- **Predict Energy Behavior of Prosumers**, 2024 — **6th Place · \$5,000** — forecasting solar production & consumption for prosumers
- **Power Patterns Challenge**, 2024 — **1st Place · \$3,000** — energy-consumption time-series analysis
- **Net Load Forecasting Prize** (U.S. DOE), 2023 — **2nd Place · \$150,000** — forecasting demand net of renewable generation under high uncertainty
- **Digitizing Utilities Prize** (U.S. DOE), 2023 — **Phase 1 Winner · \$75,000** — analytics & tooling for electric utilities
- **NeurIPS CityLearn Challenge — Forecasting Track**, 2023 — **1st Place · \$1,000** — building load + solar-generation forecasting
- **American-Made Solar Forecasting Prize** (U.S. DOE), 2022 — **Runner-up · \$25,000** — probabilistic solar irradiance forecasting for grid integration
- **NeurIPS CityLearn Challenge**, 2022 — **2nd Place · \$5,000** — building energy management & optimization
- **ASHRAE Great Energy Predictor III**, 2019 — **1st Place · \$10,000** — building energy-use prediction

Also, across other domains: **NASA Airport Throughput Prediction** (2025) — 1st · \$30,000; **NIJ Recidivism Forecasting** (2021) — Prize Winner · \$48,500. \$350,000+ total across 13 forecasting, prediction, and optimization awards (2017–2026).

EXPERIENCE

Shifted Energy — Staff Data Scientist | Honolulu, HI / Remote · Aug 2021 – Jun 2025

Led production machine-learning, forecasting, and optimization systems deployed across thousands of connected devices worldwide. Translated competition-grade modeling methods into reliable pipelines for large-scale **load forecasting**, real-time control, and measurement & verification.

H2O.ai — Senior Data Scientist | Mountain View, CA / Remote · Jun 2020 – Aug 2021

Built algorithms and product features for enterprise AutoML software; partnered with customer-facing data scientists on Fortune 500 use cases.

Iterable — Senior Data Scientist | San Francisco, CA · Jun 2019 – May 2020

Developed machine-learning methods for terabyte-scale engagement prediction and accelerated feature-engineering workflows.

Independent — Data Science Consultant | Honolulu, HI · Jul 2017 – Jun 2019

Built predictive models, analyses, and dashboards for a remote-sensing startup, academic researchers, and local startups.

EDUCATION

- **Doctoral Research, Electrical & Computer Engineering** — University of Washington · 2022 – 2025 — ML, game theory & optimization for large-scale prediction and power systems
- **M.S., Electrical Engineering** — University of Hawai'i at Mānoa · Dec 2015
- **B.S., Mathematics** — University of Hawai'i at Mānoa · Aug 2014

CORE SKILLS

Machine learning & predictive modeling · Forecasting & time-series · Model validation, leakage detection & evaluation · Feature engineering · Model selection, tuning & ensembling · Calibration & error analysis · Mathematical optimization · Applied LLM / AI · Reproducible ML pipelines · Python