Matt Motoki

Kaggle Grandmaster · Churn & Customer-Behavior Prediction

Remote | mattmotoki.github.io | Kaggle | GitHub | Google Scholar

Senior data scientist and machine-learning specialist with over a decade of experience turning customer and behavioral data into accurate, well-calibrated predictions. Built **engagement-prediction models on terabyte-scale customer event data** at Iterable, a customer-engagement platform, and worked on enterprise AutoML for Fortune 500 tabular use cases at H2O.ai. Kaggle Competitions Grandmaster (peak global rank 18) with 13 national and international awards and **$350,000+ in prize money**. Strengths include leakage-safe validation, class imbalance, probability calibration, and translating model drivers into practical retention workflows.

EXPERIENCE

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

Led production machine-learning and optimization systems deployed across thousands of connected devices worldwide. Translated competition-grade modeling methods into reliable, monitored pipelines that retrained and scored on live data.

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

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

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

Developed machine-learning methods for **terabyte-scale customer engagement prediction** at a cross-channel customer-engagement platform — modeling individual user behavior from large-scale event and interaction logs — and accelerated feature-engineering workflows using incremental updates.

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.

HiVet Solutions — Data Scientist | Honolulu, HI · Mar 2016 – May 2017

Developed data-driven methods for workforce planning, hiring, and compensation analysis with HR and Finance teams.

PREDICTIVE MODELING — SELECTED COMPETITION RESULTS

- **NASA Airport Throughput Prediction Challenge**, 2025 — **1st Place · $30,000** — short-horizon prediction from large historical operations data
- **Power Patterns Challenge**, 2024 — **1st Place · $3,000** — energy-consumption time-series analysis, delivered as a written report
- **Net Load Forecasting Prize** (U.S. DOE), 2023 — **2nd Place · $150,000** — large-scale demand prediction under high uncertainty
- **Digitizing Utilities Prize** (U.S. DOE), 2023 — **Phase 1 Winner · $75,000** — analytics application turning operational data into decisions
- **NIJ Recidivism Forecasting Challenge**, 2021 — **Prize Winner · $48,500** — individual-level behavioral outcome prediction over multi-year horizons, balancing accuracy with demographic fairness
- **ASHRAE Great Energy Predictor III**, 2019 — **1st Place · $10,000** — large-scale tabular prediction on Kaggle

Also: seven further awards in energy forecasting and optimization, including the American-Made Solar Forecasting Prize (Runner-up · $25,000) and two NeurIPS CityLearn Challenges (1st and 2nd). $350,000+ total across 13 forecasting, prediction, and optimization awards (2017–2026).

EDUCATION

- **Doctoral Research, Electrical & Computer Engineering** — University of Washington · 2022 – 2025 — machine learning, game theory & optimization for large-scale prediction
- **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

Churn & propensity modeling · Customer & behavioral event data · Gradient boosting & tabular ML · Class imbalance & probability calibration · Target-leakage detection & honest validation · Cohort & retention analysis · Feature engineering · Model selection, tuning & ensembling · Model explainability & driver analysis · Reproducible ML pipelines · Python