

Alison Ketz, PhD | *Austin, TX* | Data Science Leader, Climate & Carbon

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Data science leader who builds the quantitative core of climate products and carries it through buyers, auditors, investors, and standards bodies. At Funga PBC, own the modeling behind \$24M+ in ex-ante carbon credit sales and authored the company's Verra methodology (M0274). Fifteen years of Bayesian, spatial, and causal modeling for decision-makers, plus the team-level work of strategy, model governance, technical review, and hiring. Builds AI-assisted analysis workflows that speed delivery without loosening statistical rigor.

Experience

Funga PBC | Senior Data Scientist, Technical Lead – Carbon Program

Apr 2024 – Present

- Set data science strategy and roadmap for Funga's carbon program (methodology, ex-ante forecasting, and the production decision-support platform) across 60,000+ project acres in the southeastern US, aligning priorities with Product, Growth, Engineering, and Operations leadership.
- Oversee R&D analytics and experimental design across nursery experiments and 60+ field trials, and designed the recommendation system that turns those results and operational constraints into product decisions; built v2 and lead the team on subsequent versions.
- Built the ex-ante carbon forecasting system that, with the recommender, forms Funga's core revenue product, underpinning \$24.3M+ in ex-ante credit sales to buyers including Netflix and Swire and supporting \$8M in follow-on financing.
- Authored Funga's Verra carbon methodology (M0274): designed the paired control-plot crediting framework, additionality test, and uncertainty provisions; led the statistical response through public comment and VVB review ahead of a planned January 2027 release.
- Sole technical owner of third-party diligence (Xilva) behind the \$6.3M+ Swire offtake agreement.
- Leading design of a new revenue line: a VM0045 crediting program for elite forest genetics, including matched-baseline design for treatment at planting and power-analysis simulation of the control-plot design; delivering recommendations to the executive team as decision memos.
- Established model governance and engineering standards for the DS team (simulation-based validation, reproducibility, CI code review, MLflow); led the port of legacy R models to production Python pipelines, raising predictive R^2 from 0.24 to 0.47.
- Built a spec-driven workflow for AI-assisted analysis with Claude Code and ChatGPT: written analysis specs and change logs, one issue, branch, and PR per change, CI checks, and my statistical review on every merge, so agent-written code meets the same reproducibility standard as hand-written code; used it to deliver the 2026 carbon-cohort R&D analysis and board reporting.
- Scope, review, and mentor the modeling work of 6 data scientists and data engineers; hiring manager for DS roles.

Flux Tailor | Contract Data Scientist

Sep 2023 – Apr 2024

- Designed and deployed the PostgreSQL backend and automated Python ETL pipelines for an electric-utility analytics product, integrating high-volume, heterogeneous source data.

University of Wisconsin–Madison | Research Data Scientist I–II (Assoc. Prof. equivalent)

Sep 2017 – Mar 2024

Led a statistical and machine learning program forecasting wildlife disease and population dynamics with Wisconsin DNR and federal agency partners.

- Built spatiotemporal integrated population models and hierarchical Bayesian survival models integrating 10+ data streams (GPS movement, disease surveillance, survival, environmental) to forecast chronic wasting disease impacts on white-tailed deer.
- Delivered decision-support workflows that state wildlife managers used to compare management scenarios.
- Engineered distributed computing workflows that cut runtime 720x for large-scale Bayesian inference.
- Supervised and mentored 5 PhD-level researchers; designed and taught a graduate seminar Machine Learning in Wildlife Ecology.

Colorado State University | Research Assistant & Statistical Consultant

Aug 2011 – Sep 2017

- Statistical consultant at the Graybill Statistical Laboratory, delivering modeling projects across disciplines; taught undergraduate statistics.

Skills

- **Leadership:** Data science strategy and roadmaps, model governance, technical review, hiring and mentoring, AI adoption and governance, executive and board reporting, buyer and auditor diligence
- **Carbon & MRV:** Verra methodology development (M0274, VM0045), ex-ante forecasting, baselines and control-plot design, additionality, uncertainty provisions, VVB review
- **Methods:** Bayesian hierarchical modeling, spatial and spatiotemporal statistics, survival analysis, causal inference and experimental design, power analysis and simulation, forecasting, machine learning
- **Stack:** Python, R (nimble, JAGS), SQL/PostgreSQL, Databricks, AWS, Google Earth Engine, MLflow, Docker, Git/CI, Windmill
- **AI-assisted development:** Claude Code, ChatGPT, Cursor; spec-driven agentic coding, review and validation of AI-generated code

Education

PhD Ecology, Colorado State University (2017)

MS Statistics, Colorado State University (2013)

Hunter College, City University of NY (2009-2011), STEM coursework

BFA Photography, Lesley University College of Art & Design (2003)