

Tim Radcliffe

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Data scientist and technical lead who builds measurement and experimentation systems from scratch. 10+ years shipping data products across e-commerce, gaming, and consulting — from Bayesian A/B testing platforms serving millions of sessions to demand forecasting models and attribution systems generating measurable revenue impact. I build the infrastructure, run the experiments, and translate results into decisions. Strong software engineering background (TypeScript, Python, SQL) with open-source projects in Bayesian inference, game engines, and full-stack commerce platforms.

SELECTED EXPERIENCE

Zenith Data, Vancouver, BC — Founder & Consultant

2024 – Present

- Founded e-commerce measurement consultancy serving outdoor and high-consideration brands — owning sales, delivery, and all technical implementation.
- Built measurement systems from the ground up for multiple clients: event tracking, attribution pipelines, experimentation frameworks.
- Designed and ran training programs enabling non-technical teams to independently run and analyze their own experiments.

Game Data Pros, Remote (US) — Staff Data Scientist

2021 – 2023

- Designed and shipped an experimentation platform across multiple live games — millions of daily sessions, trillions of events, real-time assignment and analysis.
- Built and iterated a program of strategic in-game upsells with product and engineering, significantly increasing per-user revenue through controlled experiments.
- Owned the full stack: Python pipelines, SQL analytics, Airflow orchestration, dashboard delivery, and production monitoring.

Article, Vancouver — Data Lead

2019 – 2021

- Built and led the data team from scratch — defined 4 new roles, hired direct reports, and structured the team through multiple re-orgs. Direct contributions generated millions in incremental net profit.
- Shipped demand forecasting models into production and ran causal inference programs for ad attribution (geo-experiments, synthetic control, Bayesian structural time series).
- Selected and implemented the data stack: dbt for transformation, Airflow for orchestration, Redshift as warehouse, Looker for BI. Served as ad-hoc PM across cross-functional data projects.
- Regular C-level interaction — translated complex analytical results into business decisions for leadership, marketing, and operations.

Article, Vancouver — Data Analyst

2018

- First data hire — built the analytics function from zero: BI reporting, experimentation programs, attribution modeling, data engineering, and dimensional modeling.
- Sourced and evaluated tooling (warehouse, BI platform, ETL) and established the measurement practices that scaled with the team.

- Led all front-end development and client delivery for a Shopify development subscription service serving hundreds of stores.
- Grew and managed a remote team of ~10 developers. Defined processes, built internal tooling, and validated core business model.

PROJECTS

Stoa Stack — tradcliffe.com/projects/stoa

Open-source commerce intelligence platform — Bayesian experimentation, causal attribution, and integrated measurement across the e-commerce stack (Medusa, Odoo, React Router, dbt, PostgreSQL).

Tyche — github.com/trrad/tyche

Browser-native Bayesian A/B testing engine in TypeScript. Conjugate priors, variational inference, causal trees, heterogeneous treatment effects — <1ms computation, zero server dependencies.

Resonance

Real-time 3D game engine in TypeScript and Babylon.js. Entity-component architecture, physics simulation, custom rendering pipeline.

SKILLS

Languages: Python, TypeScript/JavaScript, SQL, R, C

Data & ML: PyMC, Stan, dbt, Airflow, Pandas, scikit-learn, NumPy/SciPy

Infrastructure: PostgreSQL, Redshift, BigQuery, Snowflake, Redis, Docker, AWS, GCP

Web & Software: React, Node.js, Babylon.js, D3.js, Shopify/Liquid, Eleventy

Methods: Bayesian inference, causal inference, A/B testing, heterogeneous treatment effects, demand forecasting, attribution modeling, dimensional modeling

OTHER

Wilderness & Swiftwater Instruction — Professional certifications in wilderness first aid, swiftwater rescue, and paddling instruction. Leadership and decision-making in high-consequence environments.