

# Bryan Whiting

AI & Machine Learning | End-to-End Entrepreneur and Zero-to-One Builder

[bryanwhiting.com](https://bryanwhiting.com) · [gh/bryanwhiting](https://github.com/bryanwhiting) · [linkedin/bryan-whiting](https://www.linkedin.com/in/bryan-whiting)

## Summary

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- Bryan is a generalist machine learning engineer with **11 years of ML experience** plus M.S./B.S. in Statistics, including **8 years focused on time-series forecasting**. Across startups and large enterprises, he has built and shipped production ML systems while connecting technical decisions to measurable business outcomes. He is known for taking ideas from zero to one in both corporate and founder environments. Outside of product work, he curates emerging AI developments by [bookmarking ideas](#).
- To prepare for an AI-first future and to hone his business acumen, Bryan also **founded Silvermine AI**, a successful side project where he works directly with customers, makes **high-velocity product and go-to-market decisions**, and builds profitable systems at the intersection of AI, marketing, and operations.

## Experience

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**Open Source Forecasting Platform** | ForecastingAPI.com Feb 2026 - Present  
Built [ForecastingAPI.com \(src\)](#) as a showcase for the OpenAI team of end-to-end machine learning capabilities. It was [built for this job req](#) and built exclusively using [Openclaw + Codex](#).

- Built and deployed an **open-source forecasting platform** ([ForecastingAPI.com](#)) that combines a Python time-series engine (Nixtla StatsForecast with AutoARIMA/AutoETS, configurable seasonality, rolling backtests, SMAPE scoring, and multi-series support) with an Astro/Tailwind frontend for payload-driven forecasting and interactive per-series SVG visualizations.
- Architected a **serverless, automated CI/CD pipeline** (GitHub Actions + Cloudflare Pages/Functions) to do payload validation, dispatch jobs, persist forecast artifacts, handle concurrent runs safely, and surface job status in-app without a dedicated backend service. Included compelling landing page with parallax scrolling and animations because any app should be fun and beautiful.
- (Previously) Self-driven projects: [COVID forecasting evaluation dashboard](#) and [NBA game predictor that beat 538's ELO model](#).

**Machine Learning Engineer** | Workday Mar 2024 - Present  
Experimentation, evaluation, monitoring, and deployment of time-series forecasting models for front-line worker demand forecasting (part of the Workday Labor Management product). From beta tester to GA in 18 months with Fortune 500 enterprise customers.

- Built and productionized a **demand forecasting ML platform** spanning model/feature selection, hyperparameter tuning, heuristic and ML forecasters, event support, and robust evaluation with rolling backtests and custom metrics (including SMAPE).
- Built a Kubeflow-backed monitoring dashboard for **40,000 time series** that supports rapid post-publish validation, historical forecast analysis, and A/B evaluation, enabling issue detection within minutes and supporting GA readiness.
- Rebuilt a 4-year-old, 150k-SLOC forecasting platform from scratch using Opencode + Codex (in just 4k-SLOC), delivering a modernized architecture and a **3-15% accuracy improvement** over the legacy system.
- Took the product from concept to **public GA in 18 months**, leading experimentation architecture (champion-challenger testing) and onboarding the team to a distributed Kubeflow pipeline environment.

**Founder & CEO** | Silvermine AI Sep 2023 - Present  
Marketing, websites, and custom applications for small businesses. (<https://silvermine.ai>)

- Founded and scaled an AI-first marketing services firm to **\$250k in second-year revenue**, serving **20+ clients** ranging from small businesses to companies above \$10M ARR.
- Delivered **15 websites, 5,000+ social posts, and 100+ ad campaigns**, while building analytics to track lead flow and CPA performance across accounts.

- Built **internal AI automations and custom tooling** for deep research, SEO, and review management, accelerating execution and improving campaign consistency.
- Built a **proprietary social media operations platform** ([social.silvermine.dev](https://social.silvermine.dev)) and led a **7-person team** across social, paid media, SEO, and website delivery.

### Head Data Scientist | Northbeam

Jan 2023 - Mar 2024

Designed and deployed a Marketing Mix Model time-series forecasting SaaS product, driving \$800k ARR in six months.

- Principal architect for a Marketing Mix Model SaaS product; designed, coded, and deployed an end-to-end time series forecasting, budget optimization, and analytics platform in six months (~**11,500 LOC**), contributing to rapid commercial traction and **\$800k ARR**.
- Built forecasting systems for **CAC, revenue, and LTV** using Bayesian linear regression and gradient-boosted time-series models, including bespoke, model-agnostic conformal prediction intervals to improve explainability.
- Developed **novel statistical tooling for budget optimization**, including a multi-objective channel allocator, recommendation heuristics, and bootstrapped uncertainty estimates for decision support.
- Owned delivery from product roadmap to production operations (onboarding, validation, orchestration, CI/CD, diagnostics, and reporting), partnered directly with customers, and **onboarded 7 team members in 6 weeks** to scale execution.

### Senior Data Scientist | Hopper, Hotels

Feb 2022 - Dec 2022

Drove \$5M in incremental annual revenue and increased booking conversion rate by 5% through online experimentation

- Drove **\$5M in annual revenue** by identifying user segments with sub-optimal pricing and launching new models to correct mispriced hotels. Built and deployed API to process **40 million pricing requests per day**. GCP, VertexAI, FastAPI, Docker, Python
- Increased hotels conversion rate by **5%** by building Hopper's **first hotel recommender**. Designed and launched four recommendation systems using A/B testing. Deployed several large-scale data pipelines to manage recommendations.
- Scraped competitor prices to identify opportunities for competitors. Delivered **monthly reports with actionable insights**. Built data pipelines and two dashboards to bring transparency to revenue, competitive pricing and purchasing trends.
- Developed **custom statistical analysis tooling for A/B testing** in BigQuery. Known as Hopper's A/B experimentation expert.

### Data Scientist, Engineering | Google, Maps/YouTube

Mar 2020 - Feb 2022

Data Scientist, Engineering

*YouTube: Built data-driven innovations that enhance music recommendations, ran A/B tests to improve music discovery, and drove 10% growth in photo upload volume and 5% growth in review contribution from millions of users.*

- Pioneered novel recommendation techniques to improve music discovery experiences for **over one billion users**. Used regression models and online A/B experiments to discover what users like to listen to. Presented research to multiple VP-level audiences.
- Processed, combined, and statistically sampled billions of rows across 15 data sources of video metadata and user-event logs. Found actionable insights in the noise of **80 billion events (120TB of data)** over 90 days of YouTube history.

*Google Maps: Drove 10% growth in photo upload volume and 5% growth in review contribution from millions of users, managed online A/B tests, and drove awareness to stakeholders of the quality of Maps photo and review corpus by systematically measuring data quality of billions of global locations. Measured DAU, MAU, and built KPI scaffolding for engagement metrics.*

- Drove awareness to stakeholders of the quality of Maps photo and review corpus by systematically measuring data quality of billions of global locations. Produced a **daily-updating KPI dashboard used by 20+ engineers** monitoring DAU/MAU/engagement metrics. Presented 15+ times to key stakeholders. SQL
- Explained customer behavior and cohorts via **clustering, regression, and feature importances**.

### Manager Data Scientist | Capital One

Jul 2017 - Mar 2020

Manager Data Scientist

*Manager Data Scientist, Valuations: Rebuilt a five-year-old customer valuation framework from scratch in the cloud in six months using engineering best practices.*

- Increased present value of credit card application program by **\$80M** by improving model predictions by 5%. Replaced old modeling system (trained on 5-year-old data that had 115+ manual model adjustments) with freshly-trained models.

- Processed **20x more data (1.6 billion rows, 1.7 terabytes)** by designing and developing a data mining pipeline that combines eight data sources using distributed computing techniques. Built Python packages, managed CI/CD pipelines.
- Reduced model training cadence from **2 years to 2 weeks**. Built modeling platform capable of automatically retraining **12 machine learning models** that estimate the lifetime profitability. Implemented feature selection, hyperparameter tuning, and model validation techniques. Compared decision trees and regression models. Python, XGBoost, H2O, Dask
  - Supervised **three data scientists** by providing daily feedback, mentorship, code reviews, and development opportunities.

Principal Data Scientist, Risk: *Built from scratch a real-time, time-based prediction model that powers Capital One's no preset spending limit business card.*

- Designed and developed a data mining pipeline from scratch that queried, cleaned, and combined **2 billion rows from 17 tables** into a single view of customer behavior. Developed a pipeline as a Python package with **over 26,000 lines of code** complete with logging, configuration files, code quality (unit tests, code coverage, etc.), and command-line tools. Python, PySpark, SQL, shell scripting
- Engineered **500+ time-series features**. Trained **1000+ machine learning models** and identified top 65 predictors of customer behavior. Developed novel feature selection, model selection, and model validation methods.

**Consultant II** | Bates White Economic Consulting

Aug 2015 - Jul 2017

Resident forecasting expert to build a forecasting simulation engine to anticipate rebuttals and help win billion-dollar legal cases.

- Engineered an econometric forecasting platform to analyze LIBOR trajectories, estimating **13,000+ time-series models**; conducted rigorous hypothesis testing, robustness checks, and counterfactual simulations to validate model specifications.
- Conducted **cross-sector macroeconomic forecasting**, econometric modeling, and stochastic simulations (Pharma, Biotech, Financial Services); synthesized empirical data and theoretical models to provide robust, multi-faceted economic assessments.
- Drove significant productivity gains by engineering **67 proprietary analytical tools**, reducing monthly labor requirements by **110+ hours** and achieving an adoption rate of **20,000+ executions** within a six-month period.

**Startup Co-Founder** | Novi Security

Jan 2013 - Aug 2014

Startup Co-Founder

- Achieved **top 98.7%** of all-time Kickstarter: \$175K from 848 customers in 30 days. See [Novi Security Kickstarter page](#).
- Raised **\$560K seed investment** pitching to 15+ investors across four states

## Education

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**Brigham Young University** | B.S. in Statistics (April 2015), M.S. in Statistics (April 2015)

Provo, UT

*Built statistical framework to identify outliers in [count data with class imbalance](#).*

## Technical Skills

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**Languages:** Python: H2O, PySpark, pandas, Dask, XGBoost; R: ggplot2, Plotly, Shiny, dplyr, tidyverse;

SQL; git; shell scripting; with prior experience in MATLAB; Stata; Excel VBA; C.

**Cloud:** Google Cloud Platform, BigQuery; Looker Studio; AWS: EC2, S3, Redshift, EMR; Linux; Databricks; GitHub; Jenkins; Docker; distributed computing

**ML/Stats:** Regression, classification, decision trees, statistical methods (frequentist, Monte Carlo, Bayesian).

## Open Source & Projects

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- [COVID-19 forecasting accuracy dashboard](#), [NBA game predictor that beat 538's ELO model](#) using XGBoost, [bryanwhiting.com](#).

**Links:** [gh/bryanwhiting](#) · [bryanwhiting.com](#) · [linkedin/bryan-whiting](#)

## Leadership & Recognition

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- **Peer Bonuses, Google** (2020-2021): Recognized five times for exceptional collaboration and work under difficult circumstances.
- **Accelerated Talent Management, Capital One** (2019): Selected as one of 30 high-achieving data scientists with leadership potential.
- **Congregation Leader** (Feb 2018-Aug 2019): Served 200+ members, conducted 15 personal interviews per quarter, and mentored youth.
- **Crocker Innovation Fellow, BYU** (Jan 2013): Selected as one of 20 university students to receive \$10,000 to pursue entrepreneurial ideas.
- **Volunteer Missionary, Honduras** (Aug 2009-Aug 2011): Taught self-reliance principles to hundreds of people across six cities. Gained empathy for those living in extreme poverty. Became fluent in a foreign language and culture.